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JOURNAL

OF THE

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50

AMERICAN ORIENTAL SOCIETY.

EDITED BY

24544

JAMES RICHARD JEWETT, AND HANNS OERTEL

Professor in Harvard University,
Cambridge, Mass.

Professor in Yale University.
New Haven, Conn.

THIRTY-FIRST VOLUME

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(77)

THE AMERICAN ORIENTAL SOCIETY,

NEW HAVEN, CONNECTICUT, U. S. A.

MCMXI

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ERRATA.

In vol. 30, p. 359, line 14, read "refuge" for "refuse"; p. 365, foot-note 1, line 4, read "Vasistha" for "Vasistha"; p. 371, note 1, line 2, read "dvīpās" for "dvīpas"; p. 372, line 29, read "beside" for "besides"; and p. 372, line 33, read "Symplegades" for "simple edges".

PROCEEDINGS
OF THE
AMERICAN ORIENTAL SOCIETY,
AT ITS
MEETING IN CAMBRIDGE, MASSACHUSETTS.

1911.

The annual meeting of the Society, being the one hundred twenty-third meeting, was held in Cambridge, Massachusetts, on Wednesday and Thursday of Easter week, April 19th and 20th.

The following members were present at one or more of the sessions :

Aitken,	Gellot,	Lanman,	Reisner.
Arnold,	Haas,	Lyon,	Rudolph, Miss
Atkinson,	Haupt,	Moore, G. F.,	Steele,
Barret,	Hoyt, Miss.	Moore, Mrs. G. F.	Toy,
Bloomfield,	Hussey, Miss	Muss-Arnolt,	Vanderburgh,
Carus,	Jastrow,	Oertel,	Ward, W. H.
Channing, Miss,	Kellner,	Ogden, C. J.,	Warren, W. F.,
Clay,	Miss Kendrick,	Ogden, Miss	Winslow,
Edgerton,	Kent, R. G.	Oliphant,	Wood,
Ember,	Kyle,	Orne.	Total: 39.

The first session was held in the Phillips Brooks House, on Wednesday morning, beginning at eleven o'clock; the President, Professor Maurice Bloomfield, being in the chair.

The reading of the minutes of the meeting in Baltimore, March 31st-April 2nd, 1910. which had been already printed in the Journal (vol. 31, pp. i-ix), was dispensed with.

The Committee on Arrangements presented its report, through Professor Lyon, in the form of a printed programme. The succeeding sessions were appointed for Wednesday afternoon

at half past two. Thursday morning at half past nine, and Thursday afternoon at half past two. It was announced that a luncheon would be given to the Society by its resident members at the Colonial Club on Wednesday at one o'clock, and that arrangements had been made for a subscription dinner at the same place on Thursday evening at seven o'clock. The Colonial Club extended its courtesies to the members of the Society during their meeting.

REPORT OF THE CORRESPONDING SECRETARY.

The report of the Corresponding Secretary, Professor A. V. Williams Jackson, was presented by Dr. Haas as follows:

During the course of the year the Secretary has had pleasant correspondence not only with persons interested in Oriental matters who have inquired as to the aims and activities of the Society, but also with some fellow-members in more distant parts, such as Major C. C. Smith, in the Philippines, Dr. Edward P. Hume, of China, Dr. Justin E. Abbott, of Bombay, (who is now in this country), and with a number of colleagues in Europe. Letters of acceptance have been received from all those elected to membership at the last meeting.

Among the formal communications received may be mentioned invitations to participate in the International Congress of Orientalists, to be held at Athens in 1912, and in the Universal Races Congress, which will take place in London this July; a request for co-operation from the George Washington Memorial Association of America; and a letter from Professor Snouck Hurgronje, of Leiden, calling upon the members of the Society to aid in the publication of the *Encyclopaedia of Islam*. All of these communications have been duly acknowledged and laid before the Directors for consideration.

The Secretary has to record the loss of three members by death during the past year.

The Rev. Dr. Henry N. COBB, of New York, who was a member of the Society since 1875, died in April 1910, at an advanced age.

Mr. Thomas W. KINGSMILL, who died at Shanghai in the autumn of 1910, was a recent accession to our number, having joined the Society in 1909. Although an architect by profession, he was an indefatigable student and had considerable knowledge of the classical Chinese literature. He was the author of many articles on Chinese subjects and made several happy poetical translations from the Odes of the Shih Ching.

Professor William G. SUMNER, of Yale University, who died in April 1910, became a member of the Section for the Historical Study of Religions in the year 1898.

In closing this report, which will be presented during the absence of the Secretary on another journey to India and the East, he desires to express his appreciation of the willing co-operation of all concerned in the work and to add a hearty wish for the continued welfare of the Society.

REPORT OF THE TREASURER.

The annual report of the Treasurer, Professor F. W. Williams, was presented by the Recording Secretary, as follows:

RECEIPTS AND DISBURSEMENTS BY THE TREASURER OF THE AMERICAN ORIENTAL
SOCIETY FOR THE YEAR ENDING DEC. 31, 1910.

Receipts.

Balance from old account, Dec., 1909		\$ 715.04
Dues (183) for 1910	\$ 914.41	
„ (33) for other years	165.00	
„ (12) H. S. R. Section	24.00	1,103.41
Sales of Journal		295.69
State National Bank Dividends		127.93
		<u>\$ 2,242.07</u>

Expenditures.

Printing Journal, Volume XXX	\$ 1,102.88
Sundry printing and addressing	65.87
Typewriter	4.00
Editor's Honorarium	100.00
Treasurer, Postage	13.55
Subvention to Orientalische Bibliographie	95.83
Balance to new account	<u>860.94</u>
	<u>\$ 2,242.07</u>

STATEMENT.

	1909	1910
Bradley Type Fund	\$ 2,781.29	\$ 2,914.35
Cotheal Fund	1,000.00	1,000.00
State National Bank Shares	1,950.00	1,950.00
Connecticut Savings Bank	6.64	6.90
National Savings Bank	12.59	13.07
Interest, Cotheal Fund	237.88	284.71
Cash in hand	<u>24.69</u>	
	<u>\$ 6,013.09</u>	<u>\$ 6,169.03</u>

The Treasurer in presenting his report for the year 1910 calls the attention of the members of the Society to a falling off in receipts from dues owing chiefly to an unusual number of delinquencies in paying the annual assessment. He takes occasion to remind them again that on failing to pay two years in succession they are dropped from the list of members unless good reason is given for a longer delay. The total receipts during the past year show a falling off (\$ 1527.03 against \$ 1813.37), leaving out the small sum of interest from the Savings Bank interest, which being left in the banks is removed from the Treasurer's debit and credit account and reported in the annual Statement. The cost of printing and mailing the Journal has been reduced from about \$1800 to \$1102.

REPORT OF THE AUDITING COMMITTEE.

The report of the Auditing Committee, Professors Torrey and Oertel, was presented by the Recording Secretary, as follows:

We hereby certify that we have examined the account book of the Treasurer of this Society and have found the same correct, and that the foregoing account is in conformity therewith. We have also compared the entries in the cash book with the vouchers and bank and pass books and have found all correct.

CHARLES C. TORREY, } *Auditors.*
HANNS OERTEL, }

NEW HAVEN, Conn., April 10, 1911.

REPORT OF THE LIBRARIAN.

The Librarian, Professor Hanns Oertel, presented his report as follows:

By arrangement with the Librarian of Yale University the work of accessioning of new books was carried on during the past year by the regular staff of the University Library. In the same way the University Library took charge of the sales of the Journal, covering all necessary correspondence and the collecting of bills. For this service the Society paid a nominal charge.

The Library has received from Professor Jewett one hundred dollars, this being the amount of his honorarium as editor of the Journal and a further sum of one hundred dollars for defraying the expenses of the Library.

REPORT OF THE EDITORS.

The report of the Editors, Professors Oertel and Jewett, was presented by Professor Oertel, as follows:

From the financial point of view the printing of the Journal abroad has resulted in a decided saving (see the Treasurer's Report). It has also been possible to use a greater variety of Oriental type without any appreciable increase of cost, and, in spite of the distance, the four parts of the Journal have appeared fairly punctually at the beginning of each quarter. But as it is manifestly impossible to allow authors more than two proofs, the editors would urge contributors to prepare their MS. carefully for the press, to make corrections as plainly as possible, and to avoid extensive alterations and additions. If additions are unavoidable, they should be added at the end of the article.

ELECTION OF MEMBERS.

The following persons, recommended by the Directors, were elected corporate members of the Society:

CORPORATE MEMBERS.

Rev. Mr. D. F. Bradley, Cleveland, O.
 Professor R. E. Brünnow, Princeton, N. J.
 Mrs. Francis W. Dickins, Washington, D. C.
 Mr. E. A. Gellot, Ozone Park, L. I., N. Y.
 Mr. W. S. Howell, New York, N. Y.
 Mr. R. L. Kortkamp, Hillsboro, Ill.
 Rev. Dr. E. S. Rousmaniere, Boston, Mass.
 Mr. R. H. Rucker, New York, N. Y.
 Mr. E. B. Soane, Muhammerah, Persian Gulf.
 Rev. Mr. H. B. Vanderbogart, Middletown, Conn.
 Professor J. E. Wishart, Xenia, O.
 Mr. R. Zimmermann, Berlin, Germany.

OFFICERS FOR 1910-1911.

The committee appointed in Baltimore to nominate officers for the ensuing year, consisting of Professors E. Washburn Hopkins, Christopher Johnston, and Barrett, reported through Professor Barrett.

The election of a Secretary for the Section for Religions was postponed to Friday morning.

The officers nominated by the committee were duly elected, as follows:

President—Professor George F. Moore, of Cambridge.

Vice-Presidents—Professor Paul Haupt, of Baltimore; Professor Robert F. Harper, of Chicago; Professor Charles C. Torrey, of New Haven.

Corresponding Secretary—Professor A. V. W. Jackson, of New York.

Recording Secretary—Dr. George C. O. Haas, of New York.

Treasurer—Professor Frederick Wells Williams, of New Haven.

Librarian—Professor Albert T. Clay, of New Haven.

Directors—The officers above named, and Professors Crawford H. Toy and Charles R. Lanman, of Cambridge; E. Washburn Hopkins and Hannus Oertel, of New Haven; Maurice Bloomfield, of Baltimore; George A. Barton, of Bryn Mawr; Dr. William Hayes Ward, of New York.

The President, Professor Maurice Bloomfield, of Johns Hopkins University, delivered the annual address on "The Religion of the Sikhs".

After the Presidential address the Society proceeded to the hearing of communications.

Professor Paul Haupt, of Johns Hopkins University, presented a communication on Some Difficult Passages in the Cuneiform Account of the Deluge.

At one o'clock the Society took a recess until half past two.

SECOND SESSION.

At half past two o'clock the Society reassembled in the Phillips

Brooks House, and the presentation of communications was resumed, as follows:

Miss S. F. Hoyt, of Baltimore: The Name of the Red Sea.

Professor R. G. Kent, of the University of Pennsylvania: The Etymology of Syriac *dastabīrā*.

Professor C. R. Lanman, of Harvard University: Buddha-ghosa's Way of Purity.

Dr. C. J. Ogden, of Columbia University: References to the Caspian Gates in Ammianus Marcellinus.

Miss E. S. Ogden, of Albany: A Conjectural Interpretation of *Cuneiform Texts* (v 81. 7—27). — Remarks were made by Professors Jastrow and Bloomfield.

The Rev. Dr. F. A. Vanderburgh, of Columbia University: The Babylonian Legends published in *Cuneiform Texts* (xv. 1-6.)

Professor M. Jastrow, Jr.: The Chronology of Babylonia and Assyria. — Remarks were made by Mr. Kyle and by Professor Wiener.

At five o'clock the Society adjourned to Thursday morning, at half past nine.

THIRD SESSION.

The Society met at quarter before ten o'clock in the Phillips Brooks House, President Bloomfield presiding. The reading of communications was resumed as follows:

Dr. Edgerton, of Johns Hopkins University: Later history of the Sanskrit suffix *ka*. — Remarks by Professors Lanman and Bloomfield, and Dr. C. J. Ogden.

Dr. A. Ember, of Johns Hopkins University: Semito-Egyptian words. — Remarks by Professor Haupt, Mr. Kyle, and Professor Bloomfield.

Professor S. G. Oliphant, of Olivet College: The elliptic dual and the dual dvandva. — Remarks by Dr. Edgerton, Dr. C. J. Ogden, and Professor Bloomfield.

The President announced that a telephone message had just been received from Colonel Thomas Wentworth Higginson, one of the oldest members of the Society, sending his greetings to the Society and regretting that he was prevented by the inclemency of the weather from attending the sessions today. It was voted that the Society send its greetings to Colonel Higginson and express its regret that he was unable to be present. Professor Lanman was asked to communicate this vote to Colonel Higginson, and also to send a salutation from the Society to Professor W. W. Goodwin. Professor Lyon was requested to do the same to Professor C. H. Toy, who has been for forty years a member of the Society.

Mr. E. A. Gellot: Monosyllabism of the Semitic Languages.
— Remarks by Professors Lyon, Haupt, Kent, and Bloomfield.

Professor Paul Haupt, a Vice-President of the Society, took the chair.

Professor M. Bloomfield, of Johns Hopkins University: Final account of the work on Rig-Veda Repetitions.

Miss S. F. Hoyt, of Baltimore: The Holy One in Psalm 16:10.
— Remarks by Dr. Ember.

Dr. B. B. Charles, of Philadelphia: The autobiography of Ibn Sinā; presented by title by Professor Jastrow.

Dr. A. Ember, of Johns Hopkins University: The etymologies of Aramaic *leḥēnā* and Hebrew *gāhar*, *šēlem*, etc.

At one o'clock the Society took a recess until half past two o'clock.

FOURTH SESSION.

The Society met at a quarter before three o'clock in the lecture-room of the Semitic Museum, with Vice-President Haupt in the chair. A communication was presented by Miss S. F. Hoyt, of Baltimore: The etymology of *religion*.

At three o'clock President Bloomfield took the chair. Professor Oertel reported for the Directors that they had appointed the next annual meeting of the Society to be held in New York, on Tuesday, Wednesday, and Thursday of Easter week, April 9th, 10th, and 11th, 1912.

They had reappointed as Editors of the Journal, Professors Oertel and Jewett.

The Directors further recommended the adoption of the following resolutions concerning the Section for the Historical Study of Religions:

1. That the American Oriental Society emphasize more forcibly in the future the inclusion of the historical study of religions in its scope.
2. To discontinue the separate Section for the Historical Study of Religions.
3. To invite the members of the present Section for the Historical Study of Religions to become corporate members of the Society.
4. That one special session of the meeting be devoted to papers dealing with the historical study of religion in its widest scope (including primitive religions, European religions. etc.)
5. That the Constitution be amended by the omission of the words "Secretary of the Section for the Historical Study of Religions" in Article V, by the omission of Article X entire, and by the renumbering of Article XI as Article X; that the By-Laws be amended by the omission of Article IX and the renumbering of Article X as Article IX.

It was moved that the report be adopted, and that the proposed changes in the Constitution and By-Laws be made. This motion was carried, *nemine contradicente*.

Professor Oertel moved a vote of thanks to the authorities of Harvard University, to the Governors of the Colonial Club, and to the Committee of Arrangements, Professors Lyon and Lanman.

On motion of Dr. Haas, the thanks of the Society were tendered to Professor Oertel for his services as Librarian.

The President, Professor Bloomfield, announced that he had appointed as a Committee on Arrangements for the next annual meeting Professors Gottlieb and Jackson, and Dr. Haas, of Columbia University; as a Committee to nominate officers to be elected at the next annual meeting, Professors Lanman and Lyon, of Harvard University, and Dr. C. J. Ogden, of Columbia; as Auditors to audit the accounts of the Treasurer, Professors Torrey and Oertel, of Yale University.

Communications were presented as follows:

Dr. W. H. Ward, of New York: The Zadokite document.

Professor George Moore, of Harvard University: A hitherto unknown Jewish sect; Schechter, *Documents of Jewish Sectaries I*.

Professor D. G. Lyon, of Harvard University: Notes on a Canaanite cemetery.

Miss A. Rudolph, of Cleveland: The outlook for Oriental studies in Cleveland.

Professor W. F. Warren, of Boston University: Why does Plutarch describe the moon as bi-perforate?

At quarter after five o'clock the Society adjourned to meet in New York, on Tuesday, of Easter week, April 9th, 1912.

The following communications were read by title:

Rev. Dr. J. E. Abbott: The Fire Temple at Baku and its inscriptions.

Professor K. Asakawa, of Yale University: The parallels of the Frankish *precaria* and *beneficium* in the mediaeval history of Japan.

Professor G. A. Barton, of Bryn Mawr College:

- (a) On the etymology of Ishtar;
- (b) Notes on Babylonian and Assyrian systems of measures;
- (c) Improvements in the renderings of the Blau monuments, the Scheil tablet, and the Hoffman tablet (J. A. O. S. 22, 118—128; 23, 21—28).

Dr. F. R. Blake, of Johns Hopkins University:

- (a) The original meaning of the Semitic intransitive verbal forms;

(b) The Hebrew metheg.

(c) Relative clauses in Tagalog.

Rev. Mr. J. L. Chandler, of Madura, Southern India
Hinduism as taught in Hindu Schools.

Dr. B. B. Charles, of Philadelphia: The autobiography of
Ibn Sīnā.

Mr. C. E. Conant, of the University of Chicago: Monosyllabic
roots in Pampanga.

Dr. A. Ember, of Johns Hopkins University:

(b) Scriptio plena of the Hebrew imperfect *iqtol*.

Professor E. W. Fay, of the University of Texas: Indo-
Iranian word-studies.

Professor Paul Haupt, of Johns Hopkins University:

(b) The four Assyrian stems *la'u*;

(d) Biblical and Oriental articles in the new edition of the
Encyclopædia Britannica, and the Islamic Encyclo-
pædia.

Professor Margolis, of the Dropsie College: The Washington
manuscript of Joshua.

Professor W. Max Müller, of the University of Pennsylvania
General account of a papyrus collection recently acquired by
the University of Pennsylvania Museum.

Professor J. D. Prince, of Columbia University: A divine
lament (*Cuneiform Texts*, xv. 24, 25).

Mr. G. P. Quackenbos, of New York: An unedited Sanskrit
poem of Mayūra.

Rev. Dr. W. Rosenau, of Johns Hopkins University:

(a) The term תורה in the Talmud.

(b) The Talmudic proclitic קא.

(c) Some Talmudic compounds.

Professor G. Sverdrup, Jr., of Augsburg Seminary, Minnea-
polis: A letter from the Mahdi to General Gordon.

Dr. A. Yohannan, of Columbia University: Some references
in Arab writers to the ancient city of Merv.

LIST OF MEMBERS.

The number placed after the address indicates the year of election

I. HONORARY MEMBERS.

- M. AUGUSTE BARTH, Membre de l'Institut, Paris, France. (Rue Garancière, 10.) 1898.
- Dr. RAMKRISHNA GOPAL BHANDARKAR, C. I. E., Dekkan Coll., Poona, India. 1887.
- JAMES BURGESS, LL.D., 22 Seton Place, Edinburgh, Scotland. 1899.
- Prof. CHARLES CLERMONT-GANNEAU, 1 Avenue de l'Alma, Paris. 1909.
- Prof. T. W. REYS DAVIDS, Harboro' Grange, Ashton-on-Mersey, England. 1907.
- Prof. BERTHOLD DELBRÜCK, University of Jena, Germany. 1878.
- Prof. FRIEDRICH DELITZSCH, University of Berlin, Germany. 1893.
- CANON SAMUEL R. DRIVER, Oxford, England. 1909.
- Prof. ADOLPH ERMAN, Berlin-Steglitz-Dahlem, Germany, Peter Lennéstr. 72. 1903.
- Prof. RICHARD GARBE, University of Tübingen, Germany. (Biesinger Str. 14.) 1902.
- Prof. KARL F. GELDNER, University of Marburg, Germany. 1905.
- Prof. IGNAZ GOLDZIEHER, vii Holló-Utca 4, Budapest, Hungary. 1906.
- GEORGE A. GRIERSON, C.I.E., D.Litt., I.C.S. (retired), Rathfarnham, Camberley, Surrey, England. Corporate Member, 1899; Hon., 1905.
- Prof. IGNAZIO GUIDI, University of Rome, Italy. (Via Botteghe Oscure 24.) 1893.
- Prof. HERMANN JACOBI, University of Bonn, 59 Niebuhrstrasse, Bonn, Germany. 1909.
- Prof. HENDRIK KERN, 45 Willem Barentz-Straat, Utrecht, Netherlands. 1893.
- Prof. ALFRED LUDWIG, University of Prague. Bohemia. (Königliche Weinberge, Krameriusgasse 40.) 1898.
- Prof. GASTON MASPERO, Collège de France, Paris, France. (Avenue de l'Observatoire, 24.) 1898.
- Prof. EDUARD MEYER, University of Berlin, Germany. (Gross-Lichterfelde-West, Mommsenstr. 7) 1908.
- Prof. THEODOR NÖLDEKE, University of Strassburg, Germany. (Kalbsgasse 16.) 1878.
- Prof. HERMANN OLDENBERG, University of Göttingen, Germany. 1910. (27/29 Nikolausberger Weg.)
- Prof. EDUARD SACHAU, University of Berlin, Germany. (Wormserstr. 12. W.) 1887.

- EMILE SENART, Membre de l'Institut de France, 18 Rue François I^{er}, Paris, France. 1908.
 Prof. ARCHIBALD H. SAYCE, University of Oxford, England. 1893.
 Prof. JULIUS WELLHAUSEN, University of Göttingen, Germany. (Weberstr. 18 a.) 1902.
 Prof. ERNST WINDISCH, University of Leipzig, Germany. (Universitätsstr. 15.) 1890. [Total, 26]

II. CORPORATE MEMBERS.

Names marked with * are those of life members.

- Rev. Dr. JUSTIN EDWARDS ABBOTT, Irvington, N. Y. 1900.
 Dr. CYRUS ADLER, 2041 North Broad St., Philadelphia, Pa. 1884.
 WILLIAM E. M. AITKEN, 7 Howland St., Cambridge, Mass. 1910.
 F. STURGES ALLEN, 246 Central St., Springfield, Mass. 1904.
 Miss MAY ALICE ALLEN, Williamstown, Mass. 1906.
 Prof. WILLIAM R. ARNOLD, Theological Seminary, Cambridge, Mass. 1893.
 Prof. KANICHI ASAKAWA (Yale Univ.), 870 Elm St., New Haven, Conn. 1904.
 Rev. EDWARD E. ATKINSON, 94 Brattle St., Cambridge, Mass. 1894.
 Hon. SIMEON E. BALDWIN, LL.D., 44 Wall St., New Haven, Conn. 1898.
 Prof. LEROY CARR BARRET, Trinity College, Hartford, Conn. 1903.
 Prof. GEORGE A. BARTON, Bryn Mawr College, Bryn Mawr, Pa. 1888.
 Prof. L. W. BATTEN, 232 East 11th St., New York. 1894.
 Prof. HARLAN P. BEACH (Yale Univ.), 346 Willow St., New Haven, Conn. 1898.
 Prof. WILLIS J. BEECHER, D.D., Theological Seminary, Auburn, N. Y. 1900.
 Dr. HAROLD H. BENDER, Princeton University, Princeton New Jersey. 1906.
 Rev. JOSEPH F. BERG, Port Richmond, S. I., N. Y. 1893.
 Prof. GEORGE R. BERRY, Colgate University, Hamilton, N. Y. 1907.
 Prof. JULIUS A. BEWER (Union Theological Seminary), Broadway and 120th St., New York, N. Y. 1907.
 Dr. WILLIAM STURGIS BIGELOW, 60 Beacon St., Boston, Mass. 1894.
 Prof. JOHN BINNEY, Berkeley Divinity School, Middletown, Conn. 1887.
 Rev. Dr. SAMUEL H. BISHOP, 500 West 122d St., New York, N. Y. 1898.
 Dr. GEORGE F. BLACK, N. Y. Public Library, Fifth Ave. and 42d St., New York, N. Y. 1907.
 Dr. FRANK RINGGOLD BLAKE, Windsor Hills, Baltimore, Md.
 Rev. PHILIP BLANC, St. Johns Seminary, Brighton, Md. 1907.
 Rev. Dr. DAVID BLAUSTEIN, The New York School of Philanthropy, 105 East 22d St., New York, N. Y. 1891.
 Dr. FREDERICK J. BLISS, Protest. Syrian College, Beirut, Syria. 1898.
 FRANCIS B. BLODGETT, General Theological Seminary, Chelsea Square, New York, N. Y. 1906.
 Prof. CARL AUGUST BLOMGREN, Augustana College and Theol. Seminary, Rock Island, Ill. 1900.
 Prof. MAURICE BLOOMFIELD, Johns Hopkins University, Baltimore, Md. 1881.
 Dr. ALFRED BOISSIER, Le Rivage près Chambésy, Switzerland. 1897.

- Dr. GEORGE M. BOLLING (Catholic Univ. of America), 1784 Corcoran St., Washington, D. C. 1896.
- Prof. CORNELIUS B. BRADLEY, 2639 Durant Ave., Berkeley, Cal. 1910.
- Rev. Dr. DAN FREEMAN BRADLEY, 2905 West 14th St., Cleveland, Ohio. 1911.
- Prof. RENWARD BRANDSTETTER, Reckenbühl 18, Villa Johannes, Lucerne, Switzerland. 1908.
- Prof. JAMES HENRY BREASTED, University of Chicago, Chicago, Ill. 1891.
- Prof. CHAS. A. BRIGGS (Union Theological Sem.), Broadway and 120th St., New York, N. Y. 1879.
- Prof. C. A. BRODIE BROCKWELL, McGill University, Montreal, Canada. 1906.
- Pres. FRANCIS BROWN (Union Theological Sem.), Broadway and 120th St., New York, N. Y. 1881.
- Rev. GEORGE WILLIAM BROWN, Jubbulpore, C. P., India. 1909.
- Prof. RUDOLPH E. BRÜNNOW (Princeton Univ.) 49 Library Place, Princeton, N. J. 1911.
- Prof. CARL DARLING BUCK, University of Chicago, Chicago, Ill. 1892.
- HAMMOND H. BUCK, Division Sup't. of Schools, Alfonso, Cavite Provinces, Philippine Islands. 1908.
- ALEXANDER H. BULLOCK, State Mutual Building, Worcester, Mass. 1910.
- Dr. EUGENE WATSON BURLINGAME, 118 McKean House, West Philadelphia, Pa. 1910.
- CHARLES DANA BURRAGE, 85 Ames Building, Boston, Mass. 1909.
- Prof. HOWARD CROSBY BUTLER, Princeton University, Princeton, N. J. 1908.
- Rev. JOHN CAMPBELL, Kingsbridge, New York, N. Y. 1896.
- Pres. FRANKLIN CARTER, LL.D. Williamstown Mass.
- Dr. PAUL CARUS, La Salle, Illinois. 1897.
- Dr. I. M. CASANOWICZ, U. S. National Museum, Washington, D. C. 1893.
- Rev. JOHN L. CHANDLER, Madura, Southern India. 1899.
- Miss EVA CHANNING, Hemenway Chambers, Boston, Mass. 1883.
- Dr. F. D. CHESTER, The Bristol, Boston, Mass. 1891.
- WALTER E. CLARK, 37 Walker St., Cambridge, Mass. 1906.
- Prof. ALBERT T. CLAY (Yale Univ.) New Haven, Conn. 1907.
- *ALEXANDER SMITH COCHRAN, Yonkers, N. Y. 1908.
- *GEORGE WETMORE COLLES, 62 Fort Greene Place, Brooklyn, N. Y. 1882.
- Prof. HERMANN COLLITZ, Johns Hopkins University, Baltimore, Md. 1887.
- Miss ELIZABETH S. COLTON, 23 Park St., Easthampton, Mass. 1896.
- Prof. C. EVERETT CONANT, Indiana University, Bloomington, Indiana. 1905.
- WILLIAM MERRIAM CRANE, 16 East 37th St., New York, N. Y. 1902.
- Rev. CHARLES W. CURRIER, 913 Sixth St., Washington, D. C. 1904.
- Dr. HAROLD S. DAVIDSON, 1700 North Payson St., Baltimore, Md. 1908.
- Prof. JOHN D. DAVIS, Princeton Theological Seminary, Princeton, N. J. 1888.
- IRVING C. DEMAREST, 54 Essex St., Hackensack, N. J. 1909.
- Prof. ALFRED L. P. DENNIS, Madison, Wis. 1900.
- JAMES T. DENNIS, University Club, Baltimore, Md. 1900.
- Mrs. FRANCIS W. DICKINS, 2015 Columbia Road, Washington, D. C. 1911.
- Rev. D. STUART DODGE, 99 John St., New York, N. Y. 1867.
- Dr. HARRY WESTBROOK DUNNING, 5 Kilsyth Road, Brookline, Mass. 1894.
- Prof. M. W. EASTON, 224 South 43d St., Philadelphia, Pa. 1872.

- Dr. FRANKLIN EDGERTON, Johns Hopkins University, Baltimore, Md. 1910.
 Prof. FREDERICK G. C. EISELEN, Garrett Biblical Inst., Evanston, Ill. 1901.
 Mrs. WILLIAM M. ELLICOTT, 106 Ridgewood Road, Roland Park, Md. 1897.
 Prof. LEVI H. ELWELL, Amherst College, 5 Lincoln Ave., Amherst, Mass. 1883.
 Rev. Prof. C. P. FAGNANI, 772 Park Ave., New York, N. Y. 1901.
 Prof. EDWIN WHITFIELD FAY (Univ. of Texas), 200 West 24th St., Austin, Texas. 1888.
 Prof. HENRY FERGUSON, St. Paul's School, Concord, N. H. 1876.
 Dr. JOHN C. FERGUSON, 16 Love Lane, Shanghai, China. 1900.
 *Lady CAROLINE DE FILIPPI FITZGERALD, 167 Via Urbana, Rome, Italy. 1886.
 Rev. WALLACE B. FLEMING, Maplewood, N. J. 1906.
 Rev. THEODORE C. FOOTE, Rowland Park, Maryland. 1900.
 Prof. HUGHELL E. W. FOSBROKE, 9 Acacia St., Cambridge, Mass. 1907.
 Dr. LEO J. FRACHTENBERG, Hartley Hall, Columbia University, New York, N. Y. 1907.
 Prof. JAS. EVERETT FRAME (Union Theological Sem.), Broadway and 120th St., New York, N. Y. 1892.
 Dr. CARL FRANK, 23 Montague St., London, W. C., England. 1909.
 Dr. HERBERT FRIEDENWALD, 356, 2nd Ave., New York, N. Y. 1909.
 Prof. ISRAEL FRIEDLAENDER (Jewish Theological Sem.), 61 Hamilton Place, New York, N. Y. 1904.
 ROBERT GARRETT, Continental Building, Baltimore, Md. 1903.
 Miss MARIE GELBACH, Prospect Terrace, Park Hill, Yonkers, N. Y. 1909.
 EUGENE A. GELLOT, 1420 Chester Ave., Ozone Park, L. I., N. Y., 1911.
 Prof. BASIL LANNEAU GILDERSLEEVE, Johns Hopkins University, Baltimore, Md. 1838.
 GEV. WM. GILMORE, 11 Waverly Place, New York, N. Y. 1909.
 Prof. WILLIAM WATSON GOODWIN (Harvard Univ.), 5 Follen St., Cambridge, Mass. 1857.
 Prof. RICHARD J. H. GOTTHEIL, Columbia University, New York, N. Y. 1886.
 Miss FLORENCE A. GRAGG, 26 Maple Ave., Cambridge, Mass. 1906.
 Prof. ELIHU GRANT (Smith College), Northampton, Mass. 1907.
 Mrs. ETHEL WATTS MUMFORD GRANT, 31 West 81st St., New York, N. Y. 1904.
 Dr. LOUIS H. GRAY, 291 Woodside Ave., Newark, N. J. 1897.
 Mrs. LOUIS H. GRAY, 291 Woodside Ave., Newark, N. J. 1907.
 Miss LUCIA C. GRAEME GRIEVE, 462 West 151st St., New York, N. Y. 1894.
 Prof. LOUIS GROSSMANN (Hebrew Union College), 2212 Park Ave., Cincinnati, O. 1890.
 Rev. Dr. W. M. GROTON, Dean of the Protestant Episcopal Divinity School, 5000 Woodlawn Ave., Philadelphia, Pa. 1907.
 Prof. CHARLES B. GULICK (Harvard Univ.), 59 Fayerweather St. Cambridge, Mass. 1899.
 *Dr. GEORGE C. O. HAAS, 254 West 136th St., New York, N. Y. 1903.
 Miss LUISE HAESSLER, 1230 Amsterdam Ave., New York, N. Y. 1909.
 Dr. CARL C. HANSEN, Si Phya Road, Bangkok, Siam. 1902.
 PAUL V. HARPER, 59th St. and Lexington Ave., Chicago, Ill. 1906.

- Prof. ROBERT FRANCIS HARPER, University of Chicago, Chicago, Ill. 1886.
Prof. SAMUEL HART, D.D., Berkeley Divinity School, Middletown, Conn. 1879.
Prof. PAUL HAUPT (Johns Hopkins Univ.), 2511 Madison Ave., Baltimore, Md. 1883.
Dr. HENRY HARRISON HAYNES, 6 Ellery St., Cambridge, Mass. 1892.
Prof. HERMANN V. HILPRECHT, 807 Spruce St., Philadelphia, Pa. 1887.
Rev. Dr. WILLIAM J. HINKE, 28 Court St., Auburn, N. Y. 1907.
Prof. FRIEDRICH HIRTH (Columbia Univ.), 501 West 113th St., New York, N. Y. 1903.
Prof. CHARLES T. HOCK (Theological Sem.), 220 Liberty St., Bloomfield, N. J. 1903.
*Dr. A. F. RUDOLF HOERNLE, 8 Northmoor Road, Oxford, England. 1893.
Rev. Dr. HUGO W. HOFFMANN, 306 Rodney St., Brooklyn, N. Y. 1899.
*Prof. E. WASHBURN HOPKINS (Yale Univ.), 299 Lawrence St., New Haven, Conn. 1881.
WILSON S. HOWELL, 416 West 118th St., New York, N. Y. 1911.
HENRY R. HOWLAND, Natural Science Building, Buffalo, N. Y. 1907.
Miss SARAH FENTON HOYT, 17 East 95th St., New York, N. Y. 1910.
Dr. EDWARD H. HUME, Changsha, Hunan, China. 1909.
Miss ANNIE K. HUMPHREY, 1114 14th St., Washington, D. C. 1873.
Miss MARY INDA HUSSEY, 4 Bryant St., Cambridge, Mass. 1901.
*JAMES HAZEN HYDE, 18 rue Adolphe Yvon, Paris, France. 1909.
Prof. HENRY HYVERNAT (Catholic Univ. of America), 3405 Twelfth St., N. E. (Brookland), Washington, D. C. 1889.
Prof. A. V. WILLIAMS JACKSON, Columbia University, New York, N. Y. 1885.
Prof. MORRIS JASTROW (Univ. of Pennsylvania), 248 South 23d St. Philadelphia, Pa. 1886.
Rev. HENRY F. JENES, Canton Corner, Mass. 1874.
Prof. JAMES RICHARD JEWETT, (Harvard Univ.) Cambridge, Mass. 1887.
Prof. CHRISTOPHER JOHNSTON (Johns Hopkins Univ.), 21 West 20th St., Baltimore, Md. 1889.
ARTHUR BERRIEDALE KEITH, Colonial Office, London, S. W., England. 1908.
Prof. MAXIMILIAN L. KELLNER, Episcopal Theological School, Cambridge, Mass. 1886.
Miss ELIZA H. KENDRICK, 45 Hunnewell Ave., Newton, Mass. 1896.
Prof. CHARLES FOSTER KENT (Yale Univ.), 406 Humphrey St., New Haven, Conn. 1890.
Prof. ROLAND G. KENT, University of Pennsylvania, Philadelphia, Pa. 1910.
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Miss LUCILE KOHN, 1138 Madison Ave., New York, N. Y. 1907.
RICHARD LEE KORTKAMP, Hillsboro, Ill.
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M. A. LANE, 451 Jackson Boulevard, Chicago, Ill. 1907.
*Prof. CHARLES ROCKWELL LANMAN (Harvard Univ.), 9 Farrar St., Cambridge, Mass. 1876.

- DR. BERTHOLD LAUFER. Field Museum of Natural History, Chicago, Ill. 1900.
- LEVON J. K. LEVONIAN, Syrian Protest. College, Beirut, Syria. 1909.
- Prof. CHARLES E. LITTLE (Vanderbilt Univ.), 19 Lindsley Ave., Nashville, Tenn. 1901.
- PERCIVAL LOWELL, 53 State St., Boston, Mass. 1893.
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- *BENJAMIN SMITH LYMAN, 708 Locust St., Philadelphia, Pa. 1871.
- Prof. DAVID GORDON LYON, Harvard Univ. Semitic Museum, Cambridge, Mass. 1882.
- ALBERT MORTON LYTHERG, Metropolitan Museum of Art, New York, N. Y. 1899.
- Prof. DUNCAN B. MACDONALD, Hartford Theological Seminary, Hartford, Conn. 1893.
- WILLIAM E. W. MACKINLAY, 1st Lieut. 11th U. S. Cavalry, Fort Ethan Allen, Vt. 1904.
- Rev. DR. ALBERT A. MADSEN, 22 Courtney Ave., Newburgh, N. Y. 1906.
- Prof. HERBERT W. MAGOUN, 70 Kirkland St., Cambridge, Mass. 1887.
- Prof. MAX L. MARGOLIS, 1519 Diamond St., Philadelphia, Pa. 1890.
- Prof. ALLAN MARQUAND, Princeton University, Princeton, N. J. 1888.
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- DR. TRUMAN MICHELSON, Bureau of American Ethnology, Washington, D. C. 1899.
- Mrs. HELEN L. MILLION (*née* LOVELL), Hardin College, Mexico, Mo. 1892.
- Prof. LAWRENCE H. MILLS (Oxford Univ.), 218 Iffley Road, Oxford, England. 1881.
- Prof. J. A. MONTGOMERY (P. E. Divinity School), 6806 Green St., Germantown, Pa. 1903.
- Prof. GEORGE F. MOORE (Harvard Univ.), 3 Divinity Ave., Cambridge, Mass. 1887.
- DR. JUSTIN HARTLEY MOORE, 549 Springdale Ave, East Orange, N. J. 1904.
- *Mrs. MARY H. MOORE, 3 Divinity Ave., Cambridge, Mass. 1902.
- CHARLES J. MORSE, 1825 Asbury Ave., Evanston, Ill. 1909.
- Prof. EDWARD S. MORSE, Salem, Mass. 1894.
- Rev. HANS K. MOUSSA, 316 Third St., Watertown, Wis. 1906.
- Prof. W. MAX MÜLLER, 4308 Market St., Philadelphia, Pa. 1905.
- Mrs. ALBERT H. MUNSELL, 65 Middlesex Road, Chestnut Hill, Mass. 1908.
- DR. WILLIAM MUSS-ARNOLT, Public Library, Boston, Mass. 1887.
- Rev. JAS. B. NIES, Care London City and Midland Bank, Threadneedle St., London, England. 1906.
- Rev. WILLIAM E. NIES, Port Washington, Long Island, N. Y. 1908.
- Rt. Rev. Mgr. DENNIS J. O'CONNELL, DD. St. Mary's Cathedral, San Francisco, Cal. 1903.

- Prof. HANNS OERTEL (Yale Univ.), 2 Phelps Hall, New Haven, Conn. 1890.
Dr. CHARLES J. OGDEN, 250 West 88th St., New York, N. Y. 1906.
Miss ELLEN S. OGDEN, St. Agnes School, Albany, N. Y. 1898.
Prof. SAMUEL G. OLIPHANT, Olivet College, Olivet, Mich. 1906.
ALBERT TENENCK OLNSTEAD, Princeton Preparatory School, Princeton, N. J. 1909.
Prof. PAUL OLTRAMARE (Univ. of Geneva), Ave. de Bosquets, Servette, Genève, Switzerland. 1904.
*ROBERT M. OLYPHANT, 160 Madison Ave., New York, N. Y. 1861.
Dr. JOHN ORNE, 104 Ellery St., Cambridge, Mass. 1890.
Rev. Dr. CHARLES RAY PALMER, 562 Whitney Ave., New Haven, Conn. 1900.
Prof. LEWIS B. PATON, Hartford Theological Seminary, Hartford, Conn. 1894.
Prof. WALTER M. PATTON, Wesleyan Theological College, Montreal, Canada. 1903.
Dr. CHARLES PEABODY, 197 Brattle St., Cambridge, Mass. 1892.
Prof. ISMAR J. PERITZ, Syracuse University, Syracuse, N. Y. 1894.
Prof. EDWARD DELAVAN PERRY (Columbia Univ.), 542 West 114th St., New York, N. Y. 1879.
Rev. Dr. JOHN P. PETERS, 225 West 99th St., New York, N. Y. 1882.
WALTER PETERSEN, Bethany College, Lindsborg, Kansas. 1909.
Prof. DAVID PHILIPSON (Hebrew Union College), 3947 Beechwood Ave., Rose Hill, Cincinnati, O. 1889.
Dr. WILLIAM POPPER, University of California, Berkeley, Cal. 1897.
Prof. IRA M. PRICE, University of Chicago, Chicago, Ill. 1887.
Prof. JOHN DYNELEY PRINCE (Columbia Univ.), Sterlington, Rockland Co., N. Y. 1888.
GEORGE PAYN QUACKENBOS, 331 West 28th St., New York, N. Y. 1904.
Prof. GEORGE ANDREW REISNER, Harvard University, Cambridge, Mass. 1891.
BERNARD REVEL, 2113 North Camac St., Philadelphia, Pa. 1910.
Prof. PHILIP M. RHINELANDER (Episcopal Theological Sem.), 26 Garden St., Cambridge, Mass. 1908.
ERNEST C. RICHARDSON, Library of Princeton University, Princeton, N. J. 1900.
J. NELSON ROBERTSON, 294 Avenue Road, Toronto, Ont. 1902.
EDWARD ROBINSON, Metropolitan Museum of Art, New York, N. Y. 1894.
Prof. FRED NORRIS ROBINSON (Harvard Univ.) Longfellow Park, Cambridge, Mass. 1900.
Rev. Dr. GEORGE LIVINGSTON ROBINSON (McCormick Theol. Sem.), 4 Chalmers Place, Chicago, Ill. 1892.
Hon. WILLIAM WOODVILLE ROCKHILL, American Embassy, Constantinople, Turkey. 1880.
Prof. JAMES HARDY ROPES (Harvard Univ.), 13 Follen St., Cambridge, Mass. 1893.
Dr. WILLIAM ROSINAU, Johns Hopkins University, Baltimore, Md. 1897.
Rev. Dr. EDMUND S. ROUSMANIERE, 56 Chestnut St., Boston, Mass. 1911.
ROBERT HAMILTON RUCKER, 27 Pine Street, New York, N. Y. 1911.
Miss ADELAIDE RUDOLPH, 2098 East 100th St., Cleveland, O. 1894.
Mrs. JANET E. RUTZ-REES, Rosemary Cottage, Greenwich, Conn. 1897.

- Miss CATHARINE B. RUNKLE, 15 Everett St., Cambridge, Mass. 1900.
- Mrs. EDW. E. SALISBURY, 237 Church St., New Haven, Conn. 1906.
- Pres. FRANK K. SANDERS, Washburn College, Topeka, Kans. 1897.
- JOHANN F. SCHELTEMA, care of Messrs. Kerkhoven & Co., 115 Heerengracht, Amsterdam, Holland. 1906.
- GEORGE V. SCHICK, Johns Hopkins University, Baltimore, Md. 1909.
- Prof. NATHANIEL SCHMIDT, Cornell University, Ithaca, N. Y. 1894.
- MONTGOMERY SCHUYLER, Jr., American Embassy, Tokyo, Japan. 1899.
- Dr. GILBERT CAMPBELL SCOGGIN, University of Missouri, Columbia, Mo. 1906.
- Dr. CHARLES P. G. SCOTT, 1 Madison Ave., New York, N. Y. 1895.
- *Mrs. SAMUEL BRYAN SCOTT (*née* Morris), 124 Highland Ave., Chestnut Hill, Philadelphia, Pa. 1903.
- Rev. JOHN L. SCULLY, Church of the Holy Trinity, 312-332 East 88th St., New York, N. Y. 1908.
- Rev. Dr. WILLIAM G. SEIPLE, 125 Tschihidai, Sendai, Japan. 1902.
- J. HERBERT SENTER, 10 Avon St., Portland, Maine. 1870.
- Rev. W. A. SHEED, American Mission, Urumia, Persia, (via Berlin and Tabriz). 1906.
- Prof. CHARLES N. SHEPARD (General Theological Sem.), 9 Chelsea Square, New York, N. Y. 1907.
- CHARLES C. SHERMAN, 614 Riverside Drive, New York, N. Y. 1904.
- *JOHN R. SLATTERY, 14, rue Montaigne, Paris, France. 1903.
- Major C. C. SMITH, P. S., Manila, Philippine Islands. 1907.
- Prof. HENRY PRESERVED SMITH, Theological School, Meadville, Pa. 1877.
- Prof. JOHN M. P. SMITH, University of Chicago, Chicago, Ill. 1906.
- ELY BANNISTER SOANE, care of Messrs. H. S. King & Co., 9 Pall Mall, London, S.W., England. 1911.
- Prof. EDWARD H. SPIEKER, Johns Hopkins University, Baltimore, Md. 1884.
- Rev. Dr. JAMES D. STEELE, 15 Grove Terrace, Passaic, N. J. 1892.
- Mrs. SARA YORKE SIEVENSON, 237 South 21st St., Philadelphia, Pa. 1907.
- President LANGDON C. STEWARTSON, Hobart College, Geneva, N. Y. 1901.
- Rev. ANSON PHELPS STOKES, Jr., Yale University, New Haven, Conn. 1900.
- MAYER SULZBERGER, 1303 Girard Ave., Philadelphia, Pa. 1888.
- Prof. GEORGE SYVERDRUP, Jr., Augsburg Seminary, Minneapolis, Minn. 1907.
- EBEN FRANCIS THOMPSON, 311 Main St., Worcester, Mass. 1906.
- Prof. HENRY A. TODD (Columbia Univ.), 824 West End Ave., New York, N. Y. 1885.
- OLAF A. TOFFTEEN, 2726 Washington Boulevard, Chicago, Ill. 1906.
- *Prof. CHARLES C. TORREY (Yale Univ.), 67 Mansfield St., New Haven, Conn. 1891.
- Prof. CRAWFORD H. TOY (Harvard Univ.), 7 Lowell St., Cambridge, Mass. 1871.
- Rev. SYDNEY N. USSHER, St. Bartholomew's Church, 44th St. & Madison Ave., N. Y. 1909.
- Rev. HERVEY BOARDMAN VANDERBOGART, Berkeley Divinity School, Middletown, Conn. 1911.
- Rev. Dr. FREDERICK AUGUSTUS VANDERBURGH, 53 Washington Sq., New York, N. Y. 1908.

- ADDISON VAN NAME (Yale Univ.), 121 High St., New Haven, Conn. 1863.
Miss SUSAN HAYES WARD, The Stone House, Abington Ave., Newark,
N. J. 1874.
Rev. Dr. WILLIAM HAYES WARD, 130 Fulton St., New York, N. Y. 1869.
Miss CORNELIA WARREN, Cedar Hill, Waltham, Mass. 1894.
Prof. WILLIAM F. WARREN (Boston Univ.), 131 Davis Ave., Brookline,
Mass. 1877.
Prof. R. M. WENLEY, University of Michigan, Ann Arbor, Mich. 1898.
Prof. J. E. WERREN, 17 Leonard Ave., Cambridge, Mass. 1894.
Prof. JENS IVERSON WESTENGARD (Harvard Univ.), Asst. Gen. Adviser to
H.S.M. Govt., Bangkok, Siam. 1903.
Pres. BENJAMIN IDE WHEELER, University of California, Berkeley, Cal.
1885.
Prof. JOHN WILLIAMS WHITE (Harvard Univ.), 18 Concord Ave., Cambridge
Mass. 1877.
*Miss MARGARET DWIGHT WHITNEY, 227 Church St., New Haven, Conn.
1908.
Mrs. WILLIAM DWIGHT WHITNEY, 227 Church St., New Haven, Conn. 1897,
Hon. E. T. WILLIAMS, U. S. Legation, Peking, China. 1901.
Prof. FREDERICK WELLS WILLIAMS (Yale Univ.), 135 Whitney Ave., New
Haven, Conn. 1895.
Dr. TALCOTT WILLIAMS ("The Press"), 916 Pine St., Philadelphia, Pa.
1884.
Rev. Dr. WILLIAM COPLEY WINSLOW, 525 Beacon St., Boston, Mass. 1885.
Rev. Dr. STEPHEN S. WISE, 23 West 90th St., New York, N. Y. 1894.
Prof. JOHN E. WISHART, Xenia, Ohio. 1911.
HENRY B. WITTON, Inspector of Canals, 16 Murray St., Hamilton, Ontario.
1885.
Dr. LOUIS B. WOLFENSON, 1620 Madison St., Madison, Wis. 1904.
Prof. IRVING F. WOOD, Smith College, Northampton, Mass. 1905.
WILLIAM W. WOOD, Shirley Lane, Baltimore, Md. 1900.
Prof. JAMES H. WOODS (Harvard Univ.), 2 Chestnut St., Boston, Mass.
1900.
Dr. WILLIAM H. WORRELL, 53 Premont Street, Hartford, Conn. 1910.
Rev. JAMES OWENS WRIGHTSON, 812 20th St., N. W., Washington, D. C.
1903.
Rev. Dr. ABRAHAM YOHANNAN, Columbia University, New York, N. Y.
1894.
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Musée Guimet. (Avenue du Trocadéro.)
Académie des Inscriptions et Belles-Lettres.
École des Langues Orientales Vivantes. (Rue de Lille, 2.)
GERMANY, BERLIN: Königlich Preussische Akademie der Wissenschaften.
Königliche Bibliothek.
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GÜTTINGEN: Königliche Gesellschaft der Wissenschaften.
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Philological Society. (Care of Dr. F. J. Furnivall, 3 St. George's Square, Primrose Hill, N.W.)
ITALY, BOLOGNA: Reale Accademia delle Scienze dell' Istituto di Bologna.
FLORENCE: Società Asiatica Italiana.
ROME: Reale Accademia dei Lincei.

- NETHERLANDS, AMSTERDAM: Koninklijke Akademie van Wetenschappen.
THE HAGUE: Koninklijk Instituut voor Taal-, Land-, en
Volkenkunde van Nederlandsch Indië.
LEYDEN: Curatorium of the University.
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Archeologiji Institut.
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The Anthropological Society. (Town Hall.)
BENARES: Benares Sanskrit Coll. "The Pandit."
CALCUTTA: The Asiatic Society of Bengal. (57 Park St.)
The Buddhist Text Society. (86 Jaun Bazar St.)
Home Dept., Government of India.
LAHORE: Library of the Oriental College.
SINLA: Office of the Director General of Archaeology. (Benmore,
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NEW ZEALAND: The Polynesian Society, New Plymouth.
PHILIPPINE ISLANDS: The Ethnological Survey, Manila.
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Revue Biblique, care of M. J. Lagrange, Jerusalem.
Al-Machriq, Université St. Joseph, Beirut, Syria.

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 The American Antiquarian and Oriental Journal, 438 East 57th St., Chicago, Ill.
 American Journal of Archaeology, 65 Sparks St., Cambridge, Mass.
 Transactions of the American Philological Association (care of Prof. F. G. Moore, Columbia University, New York, N. Y.).
 Le Monde Oriental (care of Prof. K. F. Johansson, Upsala, Sweden).
 Panini Office, Bhuvaneswari, Asram Allahabad Bahadurgany, India.

VI. LIBRARIES.

The Editors request the Librarians of any Institution or Libraries, not mentioned below, to which this Journal may regularly come, to notify them of the fact. It is the intention of the Editors to print a list, as complete as may be, of regular subscribers for the Journal or of recipients thereof. The following is the beginning of such a list.

- Andover Theological Seminary.
 Boston Athenaeum, Boston, Mass.
 Boston Public Library.
 Brown University Library.
 Buffalo Society of Natural Science, Library Building, Buffalo, N. Y.
 University of California Library, Berkeley, Cal.
 Chicago University Library.
 Columbia University Library.
 Connemora Public Library, Madras, India.
 Cornell University Library.
 Harvard Sanskrit Class-Room Library.
 Harvard Semitic Class-Room Library.
 Harvard University Library.
 Hebrew Union College, Cincinnati, O.
 Johns Hopkins University Library, Baltimore, Md.
 University of Michigan, Ann Arbor, Mich.
 Minneapolis Athenaeum, Minneapolis, Minn.
 Nebraska University Library.
 New York Public Library.
 Rochester Theological Seminary, Rochester, N. Y.
 Yale University Library.

Recipients: 318 (Members) + 76 (Gifts and Exchanges) + 21 (Libraries) = 415.

CONSTITUTION AND BY-LAWS
OF THE
AMERICAN ORIENTAL SOCIETY.

With Amendments of April, 1897 and 1911.

CONSTITUTION.

ARTICLE I. This Society shall be called the AMERICAN ORIENTAL SOCIETY.

ARTICLE II. The objects contemplated by this Society shall be: —

1. The cultivation of learning in the Asiatic, African, and Polynesian languages, as well as the encouragement of researches of any sort by which the knowledge of the East may be promoted.

2. The cultivation of a taste for oriental studies in this country.

3. The publication of memoirs, translations, vocabularies, and other communications, presented to the Society, which may be valuable with reference to the before-mentioned objects.

4. The collection of a library and cabinet.

ARTICLE III. The members of this Society shall be distinguished as corporate and honorary.

ARTICLE IV. All candidates for membership must be proposed by the Directors, at some stated meeting of the Society, and no person shall be elected a member of either class without receiving the votes of as many as three-fourths of all the members present at the meeting.

ARTICLE V. The government of the Society shall consist of a President, three Vice Presidents, a Corresponding Secretary, a Recording Secretary, a Treasurer, a Librarian, and seven Directors, who shall be annually elected by ballot, at the annual meeting.

ARTICLE VI. The President and Vice Presidents shall perform the customary duties of such officers, and shall be *ex-officio* members of the Board of Directors.

ARTICLE VII. The Secretaries, Treasurer, and Librarian shall be *ex-officio* members of the Board of Directors, and shall perform their respective duties under the superintendence of said Board.

ARTICLE VIII. It shall be the duty of the Board of Directors to regulate the financial concerns of the Society, to superintend its publications, to carry into effect the resolutions and orders of the Society, and to exercise a general supervision over its affairs. Five Directors at any regular meeting shall be a quorum for doing business.

ARTICLE IX. An Annual meeting of the Society shall be held during Easter week, the days and place of the meeting to be determined by the Directors, said meeting to be held in Massachusetts at least once in three years. One or more other meetings, at the discretion of the Directors,

may also be held each year at such place and time as the Directors shall determine.

ARTICLE X. This Constitution may be amended, on a recommendation of the Directors, by a vote of three-fourths of the members present at an annual meeting.

BY-LAWS.

I. The Corresponding Secretary shall conduct the correspondence of the Society, and it shall be his duty to keep, in a book provided for the purpose, a copy of his letters, and he shall notify the meetings in such manner as the President or the Board of Directors shall direct.

II. The Recording Secretary shall keep a record of the proceedings of the Society in a book provided for the purpose.

III. *a.* The Treasurer shall have charge of the funds of the Society; and his investments, deposits, and payments shall be made under the superintendence of the Board of Directors. At each annual meeting he shall report the state of the finances, with a brief summary of the receipts and payments of the previous year.

III. *b.* After December 31, 1896, the fiscal year of the Society shall correspond with the calendar year.

III. *c.* At each annual business meeting in Easter week, the President shall appoint an auditing committee of two men—preferably men residing in or near the town where the Treasurer lives—to examine the Treasurer's accounts and vouchers, and to inspect the evidences of the Society's property, and to see that the funds called for by his balances are in his hands. The Committee shall perform this duty as soon as possible after the New Year's day succeeding their appointment, and shall report their findings to the Society at the next annual business meeting thereafter. If these findings are satisfactory, the Treasurer shall receive his acquittance by a certificate to that effect, which shall be recorded in the Treasurer's book, and published in the Proceedings.

IV. The Librarian shall keep a catalogue of all books belonging to the Society, with the names of the donors, if they are presented, and shall at each annual meeting make a report of the accessions to the library during the previous year, and shall be farther guided in the discharge of his duties by such rules as the Directors shall prescribe.

V. All papers read before the Society, and all manuscripts deposited by authors for publication, or for other purposes, shall be at the disposal of the Board of Directors, unless notice to the contrary is given to the Editors at the time of presentation.

VI. Each corporate member shall pay into the treasury of the Society an annual assessment of five dollars; but a donation at any one time of seventy-five dollars shall exempt from obligation to make this payment.

VII. Corporate and Honorary members shall be entitled to a copy of all the publications of the Society issued during their membership, and shall also have the privilege of taking a copy of those previously published, so far as the Society can supply them, at half the ordinary selling price.

VIII. Candidates for membership who have been elected by the Society shall qualify as members by payment of the first annual assess-

ment within one month from the time when notice of such election is mailed to them. A failure so to qualify shall be construed as a refusal to become a member. If any corporate member shall for two years fail to pay his assessments, his name may, at the discretion of the Directors, be dropped from the list of members of the Society.

IX. Six members shall form a quorum for doing business, and three to adjourn.

SUPPLEMENTARY BY-LAWS.

I. FOR THE LIBRARY.

1. The Library shall be accessible for consultation to all members of the Society, at such times as the Library of Yale College, with which it is deposited, shall be open for a similar purpose; further, to such persons as shall receive the permission of the Librarian, or of the Librarian or Assistant Librarian of Yale College.

2. Any member shall be allowed to draw books from the Library upon the following conditions: he shall give his receipt for them to the Librarian, pledging himself to make good any detriment the Library may suffer from their loss or injury, the amount of said detriment to be determined by the Librarian, with the assistance of the President, or of a Vice President; and he shall return them within a time not exceeding three months from that of their reception, unless by special agreement with the Librarian this term shall be extended.

3. Persons not members may also, on special grounds, and at the discretion of the Librarian, be allowed to take and use the Society's books, upon depositing with the Librarian a sufficient security that they shall be duly returned in good condition, or their loss or damage fully compensated.

Until further notice the

Publications of the American Oriental Society

will be sold as follows:

1. Members of the Society receive the current number of the Society's Journal free of charge.

2. To those who are not members of the Society the price of the current volume is six dollars, carriage to be paid by the purchaser.

3. The back volumes of the Journal will be sold separately as follows:

*Vol. I (1843-1849)	\$25	Vol. XVII (1896)	\$4
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Vol. IV (1853-1854)	5	Vol. XX (1899)	6
Vol. V (1855-1856)	5	Vol. XXI (1900)	6
*Vol. VI (1860)	20	Vol. XXII (1901)	6
Vol. VII (1862)	6	Vol. XXIII (1902)	6
Vol. VIII (1866)	8	Vol. XXIV (1903)	6
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Vol. X (1872-1880)	8	Vol. XXVI (1905)	6
Vol. XI (1882-1885)	6	Vol. XXVII (1906)	6
Vol. XII (1881)	6	Vol. XXVIII (1907)	6
Vol. XIII (1889)	8	Vol. XXIX (1908-1909)	5
Vol. XIV (1890)	6	Vol. XXX (1909-1910)	6
Vol. XV (1890)	6	Vol. XXXI (1910-1911)	6
Vol. XVI (1894-1896)	6		

* Only a very limited number of volumes I and VI can be sold separately.

4. A discount of 20 per cent. will be allowed to public libraries and to the libraries of educational institutions.

5. A limited number of complete sets (vol. I—vol. XXX) will be sold at the price of \$180. carriage to be paid by the purchaser.

6. The following separate prints are for sale:

H. G. O. Dwight, Catalogue of works in the Armenian language prior to the seventeenth century	\$5.00
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7. Beginning with volume XXX the Journal appears in four quarterly parts of which the first is issued on December first, the second on March first, the third on June first, and the fourth on September first. Single parts of the Journal cannot be sold.

All communications concerning the Library should be addressed to Professor ALBERT T. CLAY, Yale University, New Haven, Conn., U. S. A.

TO CONTRIBUTORS.

Fifty copies of each article published in this Journal will be forwarded to the author. A larger number will be furnished at cost.

GENERAL NOTICES.

1. Members are requested to give immediate notice of changes of address to the Treasurer, Prof. Frederick Wells Williams, 135 Whitney avenue, New Haven, Conn.

2. It is urgently requested that gifts and exchanges intended for the Library of the Society be addressed as follows: The Library of the American Oriental Society, Yale University New Haven, Connecticut, U. S. America.

3. For information regarding the sale of the Society's publications see the next foregoing page.

4. Communications for the Journal should be sent to Prof. James Richard Jewett, Harvard University, Cambridge. Mass., or Prof. Hanns Oertel, Yale University, New Haven. Conn.

CONCERNING MEMBERSHIP.

It is not necessary for any one to be a professed Orientalist in order to become a member of the Society. All persons—men or women—who are in sympathy with the objects of the Society and willing to further its work are invited to give it their help. This help may be rendered by the payment of the annual assessments, by gifts to its library, or by scientific contributions to its Journal, or in all of these ways. Persons desiring to become members are requested to apply to the Treasurer, whose address is given above. Members receive the Journal free. The annual assessment is \$5. The fee for Life-Membership is \$75.

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The Dates of the Philosophical Sūtras of the Brahmins.—

By HERMANN JACOBI, Professor in the University of Bonn, Germany.

Subject of the investigation.—Some of the Sūtras of the six orthodox philosophical Systems of the Brahmins¹ refer to Buddhist doctrines and refute them. As we are now sufficiently acquainted with Buddhist philosophy and its history, we can attempt to make out the peculiar school of Buddhist philosophy which is referred to in a passage of a Sūtra, and thus to determine the date, or rather *terminus a quo*, of the Sūtra in question. Our inquiry will be chiefly concerned with the Śūnyavāda or philosophical nihilism, and with the Vijñānavāda or pure idealism. The former is the philosophy of the Madhyamikas; the latter is that of the Yogācāras. It may be premised that both these systems admit the Kṣāṇikavāda or the theory of the momentariness of everything, so far at least as is consistent with their peculiar principles; to these I will now briefly advert. The Śūnyavāda maintains that all our ideas, if analysed, contain logical impossibilities or self-contradictions, and that therefore nothing real can underlie them; and that that upon which they are based is a nonentity or the void (*śūnya*, *nirupākhyā*). This system² was established by Nāgārjuna, who flourished

¹ Abbreviations: M.S. = Mimāṃsā Sūtra; B.S. = Brahma Sūtra (Vedānta); V.D. = Vaiśeṣika Darśana; N.D. = Nyāya Darśana; Y.S. = Yoga Sūtra; S.S. = Sāṅkhya Sūtra.

² The Śūnyavāda may be compared with the philosophy of Zeno, who by a similar method tried to refute the common opinion that there exist many things of a changing nature. Aristotle called Zeno *εὑρητήν τῆς διαλεκτικῆς*; the same may be said of Nāgārjuna whose Mādhyamikasūtras set the example for the dialectical literature of the Hindus which reached its height in Śrīharṣa's Khaṇḍana-Khaṇḍa-Khāḍya. It deserves to be remarked that in this regard also the Vedāntin of Śāṅkara's school follows in the track of the Śūnyavādin,

about the end of the second century A.D.¹ The Vijñānavāda contends that only consciousness or *viññāna* is real. There are two kinds of *viññāna*: 1. *ālaya-viññāna* or consciousness proper, which lasts till the individual reaches Nirvāṇa (*ā-laya*); and 2. *pravṛtti-viññāna* or the thoughts of the same individual concerning objects. The latter is produced from *ālaya-viññāna*. The Vijñānavāda was established by Asaṅga and his younger brother Vasubandhu, who seem to have flourished during the latter part of the fifth century A.D.² To this school belong Dignāga and Dharmakīrti, the greatest Buddhist philosophers and writers on Logic (*pramāṇa*). Dignāga attacked Vātsyāyana's Nyāyabhāṣya, and was answered by the Uddyotakara (6th century A.D.) in the Nyāyavārttika. Dharmakīrti, who further developed Dignāga's philosophy, appears to have flourished about the middle of the seventh century A.D.

It will be our task to examine closely the Buddhist doctrines controverted in the philosophical Sūtras in order to decide whether they belong to the Śūnyavāda or to the Vijñānavāda. On the result of our inquiry will depend the presumable date of the Sūtras in question. If they refer to the Vijñānavāda, they must be later than the fifth century A.D.; if however this is not the case, and we can assign to them an acquaintance with the Śūnyavāda only, they must date somewhere between 200 and 500 A.D.

Doubts about the conclusiveness of this argumentation.—Even if we should succeed in recognising the true origin of the controverted doctrines, still it might be doubted whether the few passages on which we must rely for proof, form a genuine part of the work in which they occur, or are a later addition. For the aphoristical style of the Sūtras, the somewhat desultory way of treating subjects, and the loose connexion of the several parts (*adhikaraṇas*) in most of these works make the insertion of a few Sūtras as easy as the detection of them is difficult. The text of the Sūtras as we have them is at best that which the oldest Scholiast chose to comment upon, and it cannot be

¹ A contemporary of Nāgārjuna was Āryadeva. A poem ascribed to him has been edited in JASB. 1898. As in that poem the zodiacal signs (*vāṣī*) and the weekdays (*vāraka*) are mentioned, it can not be earlier than the third century A.D.

² See Takakusu in *Bulletin de l'École Française d'Extrême-Orient*, 1904, vol. iv, p. 53f.

safely traced further back. The uncertainty occasioned by the nature of our texts is, however, in the present case partly remedied by the repeated allusions in one text to the same doctrines, or by the occurrence in two Sūtraworks of the same discussion with the same arguments. These facts make it probable that the topic in question was one which at that time a Sūtrakāra considered himself bound to discuss.

Another objection may be raised against our chronological argument. It may be said, and not without a considerable amount of plausibility, that even before Nāgārjuna had brought the Śūnyavāda into a system, similar opinions may already have been held by earlier Buddhist thinkers; and the same remark applies to the Vijñānavāda. Therefore, it may be argued, a reference to doctrines of the Śūnyavāda or Vijñānavāda, need not be posterior to the definite establishment of these systems. On the other hand, however, it is almost certain that a Sūtrakāra would not have thought it necessary to refute all opinions opposed to his own, but only such as had successfully passed the ordeal of public disputation. For only in that case would the doctrines themselves and the arguments *pro* and *contra* have been defined with that degree of precision which rendered their discussion in aphorisms possible to the author and intelligible to the student. Now when a philosopher succeeds in upholding his individual opinions against all opponents in public disputations, he is henceforth considered the founder of a new school or sect, and the author of its tenets.¹ Therefore we may be sure that a discussion of Śūnyavāda or Vijñānavāda opinions in a Sūtra must be referred to the period after the definite establishment of those schools.

Origin and development of the views here presented.—I conceived the general ideas set forth above and began to work them out in the summer of 1909. My first impression, supported by the comments of Śaṅkara and Vācaspatimiśra and others, was that the Sūtras, especially B.S. and N.D., refer to the Vijñānavāda. On a closer examination, however, of the evidence, I became convinced that they really refer to the Śūnyavāda, and that the later commentators had brought in the Vijñānavāda because that system had in their time risen to paramount importance. I had nearly finished my article

¹ Compare my remarks on the Dhvānikāra in ZDMG. 56. 409f.

when Professor von Stcherbatskoi told me that he had treated the question about the age of the philosophical Sūtras in his work *Теория познания и логика по учению позднѣйшихъ Буддистовъ*, часть II, St. Petersburg, 1909, and had arrived at the conclusion that the Sūtras refer to the Vijñānavāda. He kindly sent me an abstract in English of his arguments, which I subjoin for the benefit of those readers who, like the author of this paper, cannot read the Russian original.

In his work "*Epistemology and Logic as taught by the later Buddhists*" Mr. Stcherbatskoi maintains (p. 29) that the Sūtras of the chief philosophical systems in their present form do not belong to that high antiquity to which they commonly are assigned, nor to those half-mythical authors to whom tradition ascribes them. The philosophical systems themselves have been evolved at a much earlier period than that in which the Sūtras were written. The Sūtras in their present form must have been elaborated during the period subsequent to the formation of the Yogācāra school (Vijñānavāda), and their authorship has been attributed to writers of a high antiquity in order to invest them with greater authority. In a previous paper (*Notes de littérature buddhique*, Muséon nouv. série, vol. vi, p. 144), Mr. Stcherbatskoi had already established, on the authority of the Tibetan historian Bouston, that the Vijñānavāda system (Buddhist idealism), professed by a part of the Yogācāra school, was clearly formulated for the first time by Vasubandhu in his celebrated Five Prakaraṇas. As Vasubandhu could not have lived much earlier than the fifth century A.D., it follows that those philosophical Sūtras which refer to his doctrine, in order to refute it, cannot have been written at an earlier time.

It is well known that Buddhist idealism is mentioned, and that its tenets are refuted, in the Sūtras of Bādarāyaṇa and of Gotama. Thus B.S. ii. 2. 28 refutes the doctrine of the non-existence of external things. Again, ii. 2. 30 refutes the erroneous opinion of those who admit solely the existence of a series of mental impressions unsupported by external objects, and, arguing from the Buddhist's point of view, demonstrates that a series of mental impressions (internal cognitions) could not exist, unless there were external objects to produce the impression. Once more, B.S. ii. 2. 31 maintains, according to Śaṅkara's interpretation, that, inasmuch as, according to Buddhist doctrine, the stream of internal cognition consists of a series of separate moments, it cannot have actual existence on account of its momentariness.

It appears upon consideration of these Sūtras that their author is bent upon refuting the doctrine which proclaims 1. the unreality of the external world, and 2. the actuality of an internal consciousness which consists of a series of cognitional acts. Both these tenets are characteristic of Buddhist idealism which developed subsequently to the nihilistic doctrine of the Madhyamikas. The latter denied the reality of the internal consciousness as well as that of the external world.

In his commentary, Śaṅkara corroborates our opinion, inasmuch as

he avers that the above mentioned Sūtras refute the doctrine of those who maintain that the stream of our consciousness is an altogether internal process, existing only so far as it is connected with the mind. Now it is well known that the Vijñānavādins alone professed the doctrine that *prameya* and *pramāṇa* and *pramāṇaphala* have existence only in so far as they are connected with the mind (cf. p. 418 of vol. i of Thibaut's translation of B.S.; Śloka. iv. 74 ff.; Nyāyabindu, i. 18, ii. 4). Śāṅkara mentions likewise the scholastic argument against realism of which Dignāga made use at the opening of his work *Ālambanaparīkṣā* (cf. *Tanjour*, mdc v. 95). This work, in which the main tenet of idealism (Vijñānavāda, otherwise termed Nirālambanavāda) is proved, is one of the fundamental works of the school. The argument starts from the antinomic character of the ideas of the whole and of the parts, and states that the external object can be neither the whole, nor can it consist of atoms (indivisible partless things: cf. p. 419 in Thibaut's transl. of B.S.).

Further we find in the Nyāyasūtras a refutation of Buddhist idealism, namely in iv. 2. 26—35. It is worthy of note that the Buddhist doctrine is referred to in the course of an argument upon the nature of atoms—thus as it were answering the considerations which we likewise find in the work of Dignāga in favor of the Nirālambanavāda. The Nyāyasūtras maintain the indivisibility of atoms, and, while refuting the opposed opinions touching this point, they refer to the Buddhists, to the Mādhyamikas (who denied the existence of atoms), and to the idealists (who admitted atoms to be a percept of the mind or an idea). In the *Tātparyatīkā*, p. 458, Vācaspatiśiṣra avers that the Sūtra, N.D. iv. 2. 24 implies a refutation of the Mādhyamika doctrine, while the Sūtras iv. 2. 26—35 are directed against those who proclaim that all ideas of external things are false (*ibid.* p. 461). It is thus established by the testimony of Vācaspatiśiṣra and of Vātsyāyana (Nyāya-bhāṣya, p. 233. 6) that Sūtra iv. 2. 26 is directed chiefly against the school of the Vijñānavādins.

Though the philosophical Sūtras of the remaining systems do not contain any clear reference to the Vijñānavādins, yet it has been noted that some of the Sūtras display a remarkable knowledge of each other. To judge by the whole tone and drift of the philosophical Sūtras, they must be the production of one and the same literary epoch.

On the basis of what has been here said, it can be averred with a considerable degree of probability that the philosophical Sūtras of the chief systems belong approximatively to one and to same period, a comparatively late one, and can in no wise be attributed to those venerable authors to whom tradition ascribes them.

Improbability of this view.—As stated before, I too entertained at first the opinion expressed by Professor von Stcherbatskoi, but I was induced to give it up by reason of the following chronological considerations. As the Nyāyabhāṣya was criticised by Dignāga, its author Vātsyāyana (Paṣila-svāmīn) must be earlier than the latter, by at least ten or

twenty years, since it is not Vātsyāyana, but the Uddyotakara (Bhāradvāja) who answered Dignāga. He may therefore have flourished in the early part of the sixth century or still earlier. Now Vātsyāyana is not the immediate successor of Akṣapāda Gautama, the author of the Sūtra; for, as Professor Windisch pointed out long ago, Vātsyāyana incorporated in his work, and commented upon them, sentences of the character of Vārttikas which apparently give in a condensed form the result of discussions carried on in the school of Gautama. Hence Gautama must have been separated by at least one generation from the Bhāsyakāra, and can therefore not be placed after the last quarter of the fifth century.¹ Thus if we accept the latest possible date for the composition of the N.D., it would fall in a period when the Vijñānavāda could scarcely have been firmly established. The V.D. is probably as old as the N.D.; for V.D. iv. 1. 6 is twice quoted by Vātsyāyana, namely in his comment on N.D. iii. 1. 33 and 67, and V.D. iii. 1. 16 is quoted by him² in his comment on N.D. ii. 2. 34, and the Uddyotakara quotes the V.D. several times simply as the Sūtra or Śāstra, and once calls its author Paramarṣi, a title accorded only to ancient writers of the highest authority.³ We are therefore almost certain that two Sūtras at least, N.D. and V.D., preceded the origin of the Vijñānavāda, or rather its definite establishment; and the same assumption becomes probable with regard to some of the remaining Sūtras, because the composition of the Sūtras seems to be the work of *one* period

¹ This result is supported by collateral proofs. 1. When commenting on N.D. i. 1. 5, Vātsyāyana gives two different explanations of the terms *pūrvavat*, *śeṣavat*, *sāmānyato dr̥ṣṭam*, the names of the three subdivisions of inference, showing thereby that the meaning of these important terms had become doubtful at his time. 2. In his concluding verse, which however, is wanting in some MSS., Vātsyāyana calls Akṣapāda a Ṛṣi, which he would not have done, if he had not considered the Sūtrakāra as an author of the remote past.

² See Bodas's *Introduction* (p. 23) in Tarkasaṃgraha BSS., 1897.

³ At this point I may mention that Professor von Stcherbatskoi, when passing through Bonn on his way to India in December 1909, told me that he had meanwhile studied the first *pariccheda* of Dignāga's *Pramāṇasamuccaya* in the Tanjour. Dignāga giving there his definition of *pratyakṣa* (perception) and refuting the opinions of the Mīmāṃsā, Nyāya, Vaiśeṣika, and Sāṅkhya, quotes N.D. i. 1. 4 and several Sūtras of V.D. which treat of *pratyakṣa*.

rather than of many. In order to prove this assumption to be true, we must show, as stated above, that the Buddhist doctrines refuted in several Sūtras need not be interpreted as belonging to the Vijñānavāda, but that the discussion in the Sūtra becomes fully intelligible if understood as directed against the Śūnyavāda.

Difficulty of distinguishing both systems in our case.—The point at issue is whether perception (*pratyakṣa*) is a means of true knowledge (*pramāṇa*) or not. The realistic view, strictly maintained by the Nyāya and Vaiśeṣika philosophies, is that by perception we become truly cognizant of real objects. The Śūnyavāda, Nihilism or Illusionism, contends that no real objects underlie our perceptions, but that those imagined objects as well as our ideas themselves are intrinsically illusory, in other words, they are nonentities or a mere void. On the other hand, the Vijñānavāda declares that our ideas or mental acts (perception included) are the only reality, and that external objects (since they have no existence) are not really perceived and do not cause our ideas about them, but are produced, so far as our consciousness is concerned, by ideas existing independently of objects. It will thus be seen that both Vijñānavāda and Śūnyavāda are at one as far as regards the unreality of external objects; and therefore a refutation of this theory may be directed against the one of these doctrines as well as the other. Commentators chose between them as suited their purpose. Thus Kumārila, commenting on a passage which will be dealt with later, makes the following remarks:¹ "(Among the Bauddhas) the Yogācāras hold that 'Ideas' are without corresponding realities (in the external world), and those that hold the Madhyamika doctrine deny the reality of the Idea also. To both of these theories, however, the denial of the external object is common.² Because it is only after setting aside the reality of the object that they lay down the Samvṛti (falsity) of the 'Idea.' Therefore on account of this (denial of the reality of external objects) being common (to both), and on account of (the denial of the reality of the 'Idea') being based upon the aforesaid denial of the external

¹ Śloka-vārttika, translated by Gangānātha Jhā, p. 120, 14—16 (Bibliotheca Indica).

² Similarly Śrīdhara ad Praśastapādabhāṣya p. 229 speaks of *nirālam-banam vijñanam icchatām Mahāyānikānām*.

object,—the author of the Bhāṣya has undertaken to examine the reality and unreality of the external object.” And accordingly Kumārila interprets his text in such a way as to make it serve as a basis for the refutation first of the Vijñānavāda and then of the Śūnyavāda. He, as well as Śaṅkara and Vācaspatimiśra and later authors who wrote when the Vijñānavāda had become the most famous Buddhist philosophy, felt of course bound to refute it; and if the text they commented upon still ignored the Vijñānavāda and combated the Śūnyavāda only, they could introduce their refutation of the Vijñānavāda by doing just a little violence to their text. That such was actually the case, is the thesis I want to prove.¹

Mentioning of the Vijñānavāda in the Sāṅkhya Sūtra.—Before examining those texts which give rise to doubts regarding the particular school combated, I briefly advert to one which beyond doubt discusses the Vijñānavāda doctrine. I refer to the Sāṅkhya Sūtra. In that work the principal doctrines of the four philosophical schools of the Buddhists are discussed: those of the Vaibhāṣikas i, 27—33, of the Sautrāntikas i, 34—41, of the Vijñānavādins i, 42. and of the Śūnyavādins

¹ *Remarks on the development of the Śūnyavāda.*—Like Kumārila, other brahmanical philosophers treat the Śūnyavāda as the logical sequence of the Vijñānavāda or as a generalization thereof; but the true or historical relation is just the reverse: the belief in the unreality of external things is a *restriction* of the previously obtaining and more general belief in the unreality or illusory nature of everything whatever, consciousness included. Buddhist Nihilism or Illusionism, introduced and supported by a splendid display of the novel dialectic art, seems to have deeply impressed and invaded the Hindu mind of that period. But realistic convictions or habits of thought could not be wholly eradicated; they entered into various kinds of compromise with Illusionism. The belief in the transcendent reality and oneness of Brahma as taught in the Upaniṣads admitted a combination with Illusionism in the Māyāvāda of the Vedāntins of Śaṅkara's school, nicknamed Pracchannabauddhas, who maintained that Brahma alone is real and that the phenomenal world is an illusion (see Sukhtankar, *The teachings of Vedānta according to Rāmānuja* in WZKM. vol. xii). On the other hand the ‘*cogito ergo sum*’ proved irresistibly self-evident to many Mahāyānists also, and led them to acknowledge the reality of consciousness. These were the Vijñānavādins or pure Idealists. But the great Logicians of this school seem to have further encroached on its principles; for Dharmakīrti, in this particular point also probably following Dignāga, declared the object of perception to be *svalakṣaṇa*, i. e. the catena or series (*santāna*) of *kṣaṇas* to be *paramārthasat*, i. e. really existing.

i, 43—47. The Sūtra referring to the Vijñānavādins reads thus: *na vijñānamātram bāhyapratīteḥ*; 'Not Thought alone because of the conception of the external.'¹ The next Sūtra (43): *tadabhāve tadabhāvāc chūnyam tarhi*, 'Since as the one does not exist, the other too does not, there is the void then' is according to Vijñānabhikṣu a refutation of the Vijñānavāda, but according to Aniruddha the statement of the Śūnyavāda which is discussed in the following Sūtras. However this may be, there can be no doubt that here both the Vijñānavāda and the Śūnyavāda are discussed, in that sequence which (as stated in the last note) has become customary for later theoretical writers. Now it is admitted on all sides that the Sāṅkhya Sūtra is a very late, or rather a modern, production, and that it does not rank with the genuine philosophical Sūtras. Therefore the fact that the Sāṅkhya Sūtra mentions the Vijñānavāda does in no way prejudice any one in deciding the question whether the Sūtras of the other systems also were acquainted with it. Perhaps it might be said that the directness of reference to the Vijñānavāda in the Sāṅkhya Sūtra shows what we should expect to find in the other Sūtras if they did really know and refute that doctrine.

1. Nyāya.

I begin our inquiry with the examination of the passage N.D. iv. 2, 25ff., which, according to Vācaspatimīśra, is directed against the Vijñānavādins; for, as explained above, chronological considerations make it almost certain that our Sūtra was composed before the establishment of the Vijñānavāda, and therefore entitle us to doubt, in this matter, the authority of the author of the Tātparya Tīkā. The subject treated in those Sūtras, namely, whether perception is a means of true knowledge, is connected with and comes at the end of a discussion of, other subjects which for the information of the reader must briefly be sketched. First comes the problem of the 'whole and its parts,' iv, 2, 4ff. The adherents of Nyāya (and Vaiśeṣika) maintain that the whole is something different (*arthāntara*) from the parts in which it 'inheres,' an opinion which is strongly combated by other philosophers. Connected

¹ Aniruddha's Commentary, Garbe's translation, in BL. page 23.

with this problem is the atomic theory, which is discussed in 14ff. After Sūtra 17, Vātsyāyana introduces an opponent, 'a denier of perception, who thinks that everything is non-existent' (*ānupalambhikaḥ sarvaṃ nāstīti manyamānaḥ*). There can be no doubt that an adherent of the Sūnyavāda is meant. He attacks the atomic theory, 18—24, and is refuted in 25 thus: "as your arguments would lead us to admit a *regressus in infinitum* (by acknowledging unlimited divisibility) and as a *regressus in infinitum* is inconsistent with sound reason, your objection is not valid (*anavasthākāritvād anavasthānupapattēś cā 'pratiṣedhaḥ*). Vātsyāyana, after explaining this Sūtra, continues: '(An opponent objects:) what you say with regard to notions (*buddhi*), that their objects are really existing things, (that cannot be proved). These notions are intrinsically erroneous (*mithyābuddhayas*); for if they were true notions, (*tattvabuddhayas*) they would, on being analysed by the understanding, teach us the true nature of their objects." The argument of this opponent is stated in Sūtra 26 which the above passage serves to introduce, and runs thus: "If we analyse things, we do not (arrive at) perceiving their true nature (or *essentia*); this not-perceiving is just as, when we take away the single threads (of a cloth), we do not perceive an existing thing (that is called) the cloth." Vātsyāyana explains: "(This is) just as on distinguishing the single threads (of a cloth): this is a thread, this is a thread, &c. &c., no different thing is perceived that should be the object of the notion cloth. Since we do not perceive the *essentia*, in the absence of its object, the notion of a cloth, that it exists, is an erroneous notion. And so everywhere." Sūtras 27 and 28 contain the counter-arguments, and Sūtra 29 adds to them the following: "And because by right perception (*pramāṇatas*, viz. *upalabdhyā*) we come to know things (whether and how they are)." Sūtra 30 gives a proof for this view: *pramāṇānupapattiyupapattibhyām*. Vātsyāyana explains: 'Now then the proposition that nothing exists is against reason; why? (answer): *pramāṇānupapattiyupapattibhyām*. If there is proof *pramāṇa* (in favour of the proposition) that nothing exists, (this proposition that) nothing exists, sublates the (existence of) proof as well. And if there is no proof for it, how can it be established that nothing exists? If it is regarded to be established without proof, why should (the contrary) that all things do exist, not be regarded as

established?" Here it is quite clear that the opponent whom Vātsyāyana refutes, is a Śūnyavādin just as in Sūtra 17. For there is no indication that Vātsyāyana in the mean time has changed front, and that the opponent in Sūtra 26 is not a Śūnyavādin, but a Vijñānavādin. The latter contends that external things do not exist (*bāhyārthā na santi*), while Vātsyāyana (on 27) makes his opponent uphold *sarvabhāvānāṃ yātkātmānupalabdhiḥ*. Moreover, this opponent maintains that "notions about things are erroneous notions (*mithyābuddhayaḥ*)," and this is primarily the view of the Śūnyavāda. The fundamental principle of the Vijñānavāda is that ideas only (*vijñāna*) are really existent, and not that they are erroneous ideas. That Vātsyāyana really has in view the opinions of the Śūnyavādins, may be seen from his concluding words in 36, "therefore erroneous notions too are really existing," and in 37, where he speaks of his opponent as one for whom "everything is without essence and unreal" (*nirātmakam nirupākhyam sarvam*). Nevertheless Vācaspatimiśra,¹ commenting on Vātsyāyana's words in Sūtra 25 translated above ("An opponent objects: what you say," &c.), remarks that the opponent is a Vijñānavādin. That he is mistaken, we have seen, and a general cause of such a mistake on the part of later commentators has been given above. p. 7. In the present case we can watch the gradual development of this misrepresentation. For in his comment on 26 the Uddyotakara again introduces the opponent's argument that every part of a thing may be regarded as a (minor) whole consisting of minor parts, and that this analysis may be continued not only down to atoms but *in infinitum* till everything is dissolved into nothing. Now as Professor von Stcherbatskoi informs us (see above p. 5), Dignāga in his work *Ālambanaparīkṣā* makes the discussion of the problem of 'the whole and its parts' the basis of his exposition of the Vijñānavāda. Therefore the Uddyotakara, who answers Dignāga's attacks on Vātsyāyana, avails himself of an opportunity to undermine the antagonist's basis of argumentation. And Vācaspatimiśra, knowing what was the starting-point of Dignāga's speculations, and seeing that it was exhaustively treated by the authors of the Sūtra and the Bhāṣya, was easily misled to believe that they were defend-

¹ Nyāyavārttikatātparyatīkā (viz. S. S.), p. 460, 3d line from below.

ing it against the Vijñānavāda. Being separated from them by 400 years or more, he was ignorant of their historical interrelation, and consequently interpreted the philosophical discussion in the text before him from a merely theoretical point of view. For, as indicated above, a rational refutation of the Śūnyavāda was naturally divided into two parts, the first proving the reality of objects and the second the reality of ideas; and a theoretical construction could well treat the Śūnyavāda as the logical outcome of the Vijñānavāda, and take the first part of the refutation of the Śūnyavāda as directed against the Vijñānavāda.

We proceed in our analysis of the Sūtra. After the last passage translated above, we have another objection of the Illusionist in Sūtras 31 and 32. "Like the erroneous belief in the objects seen in a dream is this belief in the means of true knowledge and the things known through them erroneous." Vātsyāyana explains: "Just as in a dream the objects seen in it are not real, while there is belief in them, so the means of knowledge and the things known through them are also not real (*na santi*), though there is belief in either." Sūtra 32 completes this argument: "Or like magic, *fata morgana*, and mirage." As this argument serves to demonstrate that *pramāṇa* and *prameya* are an illusion, it is evident that the opponent is a Śūnyavādin. The next Sūtra 33 answers his objection, in pointing out that 'he has established nothing, as he has given no reason' for declaring (1) that the belief in *pramāṇa* and *prameya* is like that in objects seen in a dream and not like the perception of objects in the waking state, (2) that in a dream non-existing things are perceived. This argument of the Sūtra is supplemented in the Bhāṣya by another formulated in what looks like a Vārttika; it comes to this. If you say that things seen in a dream do not exist because they are no more seen in the waking state, you must admit that those seen in the waking state do exist; for the force of an argument is seen in the contrary case, viz. that things exist because they are seen. The Uddyotakara enlarging upon this argument unmistakably introduces Vijñānavāda views; for he speaks of things independent of the mind (*citta-vyatirekin*) and uses the term *viññāna*; but there is no trace of all this in the Bhāṣya. The Sūtra then goes on to explain the belief in things seen in a dream and other topics con-

nected with the subject in hand which, however, do not concern us here.

To sum up: our investigation has proved that neither the Sūtra nor the Bhāṣya refer to the Vijñānavāda, and that the whole discussion is perfectly intelligible if we consider it as meant to refute the Śūnyavāda.¹

2. Vedānta and Mīmāṃsā.

Brahma Sūtra, 2nd Adhyāya; 2nd Pāda, contains a discussion and refutation of other philosophical systems. The Sūtras 18—32 deal with Buddhist philosophy. Sūtras 18—27 deal with the doctrines of the Sarvāstivādins; and 28—32, according to Śāṅkara, with those of the Vijñānavāda. Rāmānuja agrees with Śāṅkara in so far as he also refers Sūtras 28—30 to the Vijñānavāda, but he differs from him in that he interprets the last Sūtra² as containing a refutation of the Śūnyavāda. For convenience of reference I subjoin the text of the Sūtras 28—32 and the translation of them by Thibaut according to Śāṅkara's and Rāmānuja's interpretation:

nābhāva upalabdheḥ 28

vaidharmyāc ca na svapnādivat 29

na bhāvo 'nupalabdheḥ 30

kṣaṇikatvāc ca 31

sarvathānupapattēś ca 32.

I. Śāṅkara's interpretation, SBE. vol. xxxiv, p. 418ff.

The non-existence (of external things) cannot be maintained, on account of (our) consciousness (of them), 28.

And on account of their difference of nature (the ideas of the waking state) are not like those of a dream, 29.

The existence (of mental impressions) is not possible (on the Buddhist view) on account of the absence of perception (of external things), 30.

And on account of the momentariness (of the *ālayavijñāna*) it cannot be the abode of mental impressions), 31.

And on account of its general deficiency in probability, 32.

¹ If the Sūtrakāra knew the Vijñānavāda, we should expect him to combat it in ii, 1, 8 ff., where *pratyakṣādīnām aprāmāṇyam* is discussed. But in that place even Vācaspatimiśra (p. 249) assigns this opinion to the Madhyamikas.

² He omits Sūtra 31 of Śāṅkara's text.

II. Rāmānuja's interpretation, SBE. xlviii, p. 511 ff.:

Not non-existence on account of consciousness, 27.¹

And on account of difference of nature (they are) not like dreams, 28.

The existence [of mere cognitions] is not on account of the absence of perception, 29.

[Here ends the *adhyakaraṇa* of perception.]

And on account of its being unproved in every way (viz. that the Nothing is the only Reality), 30.

Now it would be rather surprising if the Śūnyavāda had been ignored by the Brahma Sūtra as Śaṅkara in his treatment of the above Sūtras would make us believe; he says that Śūnyavāda is thoroughly irrational and may therefore be left out of account. But the Śūnyavādin were once formidable opponents, and it would have delighted an orthodox dialectician to expound their unreasonableness. Rāmānuja apparently was conscious of this deficiency and therefore introduced the refutation of the Śūnyavāda in the very last Sūtra. But this Sūtra contains only an argument, and if Rāmānuja be right, we search in vain in the preceding Sūtras for the statement, or even a hint, of the doctrine he wishes to refute. However this Sūtra reads like a finishing blow dealt to a vanquished opponent whose arguments the author had just been refuting. That this opponent was a Śūnyavādin becomes probable if we compare the Sūtras in question with those in N.D. which we have examined above and, which, as we have seen, refer to the Śūnyavāda only. For Sūtra 29: *vaidharmyāc ca na svapnādivat*, deals with the same argument which is stated in N.D. 31f.: *svapnābhimānavad ayam pramāṇaprameyābhimānaḥ; māyāgandharvanagaramrgatrṣṇikāvad vā*. The *āli* in *svapnādivat* means according to Śaṅkara *māyādi*, in other words the things fully enumerated in the second of the quoted Sūtras of N.D. As the argument in N.D. and B.S. is the same, it is almost certain that the same doctrine is discussed in both works, and as the doctrine refuted in N.D. is the Śūnyavāda, it is highly probable that it is meant in B.S. also. Though we have thus very weighty reasons for not trusting Śaṅkara, Rāmānuja, and all the later commentators in their inter-

¹ Rāmānuja's numbering here differs from that of Śaṅkara. In order to avoid confusion I shall refer to the latter only.

pretation of the passage under consideration, still the almost deliberately enigmatical character of the Sūtras would make it a hazardous task to explain them without the aid of tradition. Fortunately, however, the same philosophical problem aphoristically discussed in those Sūtras has been dealt with at considerable length by an other ancient author.

For Śābarasvāmin, the Bhāṣyakāra of the Mīmāṃsā Sūtra, after having commented on M.S. i, 1, 5 transcribes a long passage from the unknown Vṛtti, which begins in the edition of the Bibliotheca Indica on p. 7, line 7 from below, and ends on p. 18, line 6, as the editor remarks in a footnote p. 18.¹ The whole passage is without doubt by the Vṛttikāra; it gives an explanation of Sūtras 3—5, and is introduced by Śābarasvāmin at the end of his own comment on Sūtra 5. It is therefore a matter of no little surprise to find that Kumārila-bhaṭṭa in the Śloka-vārttika (on Sūtra 5) assigns only the first part of this passage, viz. from p. 7, l. 7 from below, down to p. 8, l. 8 from below, to the Vṛttikāra; and accordingly his comment on this part only bears the title Vṛttikāragrantha in the edition of the Śloka-vārttika in the Chowkhamba Sanskrit Series, p. 212, 216. Kumārila himself refers to the author of this part of the passage as the Vṛttikāra, ib., p. 136; but he refers to the author of the following part (which is actually the work of the same author) as Bhāṣyakṛt, p. 221 (v. 16) and Bhāṣyakāra, p. 224 (v. 29), i. e., Śābarasvāmin. That part which Kumārila ascribes to the Vṛttikāra, contains the explanation of Sūtra 3 and part of Sūtra 4 only. If Kumārila were right, this passage should have been quoted by Śābarasvāmin at the end of his comment on Sūtra 4, and not, where he actually introduces it, at the end of his comment on Sūtra 5. Kumārila does not notice nor attempt to account for the fact that Śābarasvāmin, on his assumption, twice interprets part of Sūtra 4 and the Sūtra 5, once at the proper place, and then

¹ Śābarasvāmin introduces this passage by the following words: *Vṛttikāras tv anyathe 'maṃ granthaṃ varṇayāṃcakāra: tasya nimittaparīkṣitīty evamādiṃ*. We first have a comment on Sūtra 3; the comment on Sūtra 4 commences p. 8, l. 2, that on the second part of Sūtra 4 (*animittam*, &c.) on p. 12, l. 2 from below; on p. 11, l. 2 from below, begins the comment on Sūtra 5, and that on the last part of the same Sūtra on p. 17, l. 10 (*avyatirekaś ca*); *arthe 'nupalabdhe*, p. 17, last line; *tat pramāṇam* (*Bādarāyaṇasya*) *anapekṣatvāt*, p. 18, l. 3.

again after what he contends to be the end of the quotation from the *Vṛttikāra*. And any lingering doubt that also the second part of the passage ending on p. 18, l. 6, is not by Śābarasvāmin, is removed by the passage that comes after it. For there (p. 18, l. 7, 14, 16; p. 24, l. 9) he controverts and sets right some assertions in the preceding part which according to Kumārila is not by the *Vṛttikāra*. Whether Kumārila himself or some predecessor of his was the author of this error, we do not know; but we can well understand how it crept in. For Śābarasvāmin, whose habit is not to make long quotations, apparently inserted this passage from the *Vṛttikāra* because it contains a discussion of peculiar Mīmāṃsaka doctrines, e. g., on the six *pramāṇas*, for which his succinct commentary on the Sūtras of Jaimini would not otherwise have offered an opportunity. In quoting, and not criticising, those doctrines, he intimated his acceptance of them; and Kumārila therefore, misled by Śābarasvāmin's words *Vṛttikāras tv anyathe 'mam granthaṃ varṇayāmcakāra*, ascribed to the *Vṛttikāra* only that part of his exposition where it obviously differs from Śābarasvāmin's comment, not the remaining part which chiefly contains the additional matter. This second part was so important for the Mīmāṃsaka philosophy, that Kumārila devoted to the discussion of its contents little less than half the volume of his *Śloka-vārttika*. He had therefore a strong motive to ascribe this part of the quotation to Śābarasvāmin on whose *Bhāṣya* he wrote his *Vārttika*. But from the fact that he did so, we may perhaps conclude that at his time, or earlier, the original work of the *Vṛttikāra* had been lost or at least had ceased to be studied at all; for otherwise he could not have committed or repeated this gross error.

Now the question arises as to who is the author of the *Vṛtti* from which the passage under consideration has been taken. Gangānātha Jhā in his admirable translation of the *Śloka-vārttika*, p. 116, note (17) says with regard to this passage: "Kārikās 17—26 expound the view of the author of the *Vṛtti* (*Bhavadāsa*)." However, the name of *Bhavadāsa* is not given by Pārthasārathi commenting on the passage in question (printed text, p. 212—216); but on p. 11, commenting on v. 33, in which Kumārila adverts to a controverted opinion brought forward 'in other commentaries' *vṛtṭiyantareṣu*, he mentions as the authors '*Bhavadāsa* and others,' in accordance with

Kumārila's statement in v. 63, p. 21. On these passages, it would seem, Gangānātha based his conjecture, which in my opinion is unacceptable. For if an author is referred to simply by the title *Vṛttikāra*, an authority of high rank must be intended, as is seen in many other cases; and it is not at all likely that Kumārila would have ranked such an authority together with other commentators, as he did with regard to Bhavadāsa in the phrase *vṛtṭiyantareṣu*. If there had been more than one *Vṛtti*, then it would have been inaccurate to speak of the *Vṛttikāra*. And besides, the *Bhāṣya* contains no reference to Bhavadāsa; Kumārila must therefore have learned Bhavadāsa's opinion from his work. But as shown above, he most probably did not know the original work of the *Vṛttikāra*. Hence it would follow that the *Vṛttikāra* is not to be identified with Bhavadāsa.

The same scholar ascribes, on p. III of the introduction of his work named above, the *Vṛtti* to the revered Upavarṣa. But as the *bhagavān* Upavarṣa is mentioned in the very passage from the *Vṛttikāra*, he must be not only different from, but also considerably older than, the latter; for the title *bhagavān* is given only to authors of high authority and some antiquity.¹

As thus both conjectures of Gangānātha Jhā about the author of the *Vṛtti* can be shown to be wrong. I venture to advance one of my own. Rāmānuja quotes a *Vṛtti* on the *Brahma Sūtra* by Bodhāyana and refers to him as the *Vṛttikāra*.² Now I think it probable that Bodhāyana wrote the *Vṛtti* not only on the *Uttara Mimāṃsā* (i. e. B.S.), but also on the *Pūrva Mimāṃsā*, just as Upavarṣa, the predecessor of the *Vṛttikāra*, commented on both *Mimāṃsās*. For, according to Śāṅkara ad B.S. iii, 3, 53, Upavarṣa in his commentary on M.S. referred to his remarks in the *Śāṅkara*, i. e. his commentary on B.S. And Śābarasvāmīn also was equally versed in the *Uttara* and the *Pūrva Mimāṃsās*; for a lengthy dissertation on the existence of the soul, called *Ātmavāda*, (p. 19. l. 3—p. 24, l. 9 of the printed text) in his *Bhāṣya* reads like part

¹ Hall, Index, p. 167, says with reference to the Śābara Bhāṣya "Kṛṣṇa Deva states, in the *Tantra Cūḍāmaṇi*, that a *Vṛtti* was composed on this work, by Upavarṣa." If Kṛṣṇa Deva is right, his Upavarṣa must be a different person from our Upavarṣa.

² Thibaut in SBE. vol. xxxiv, p. xxi. Sukhtankar, *The teachings of Vedānta according to Rāmānuja*, p. 7, 9 (WZKM. vol. xii, p. 127. 129).

of a Vedānta treatise. Śāṅkara ad B.S. iii, 3, 53 says¹ with regard to that passage that the Ācārya Śābarasvāmin took (his subject) from B.S. iii, 3, 53, and treated it in the *pramāṇalakṣaṇa* (i.e. ad M.S. 1, 5). The meaning of this statement is that Śābarasvāmin by anticipation discussed the existence of the soul in the Bhāṣya on M.S. i, 1, 5, while the proper place for this subject is in a commentary on B.S. iii, 3, 53; we can not safely conclude from Śāṅkara's words, that Śābarasvāmin actually wrote a commentary on B.S., and even less, that he transcribed the passage in question from it (for it is clearly worded with reference to the context in which it now stands). But at any rate it is evident that at Śābarasvāmin's time the Pūrva and Uttara Mīmāṃsās still formed *one* philosophical system, while after Kumārila and Śāṅkara they were practically two mutually exclusive philosophies.

After this necessarily long digression we return to the examination of that part of the passage from the Vṛttikāra which relates to the Bauddha doctrines. It consists of two sections called Nirālambanavāda and Śūṇyavāda in the Śloka-vārttika where the discussion of it is introduced by the remarks translated above, p. 7. The author, i.e., the Vṛttikāra, has explained in the preceding part that perception is a means of right knowledge provided that no defect (*doṣa*) vitiates any of the parts or elements which combined constitute perception; he then goes on as follows:

“(An opponent objects:) ‘All cognitions (*pratyaya*) are without foundation (in reality) just like a dream; for we recognise in a dream that it is the nature of cognition to be without foundation. A waking person also has cognitions, e.g. of a post or a wall; and therefore this cognition also is without foundation.’ We answer: a waking man's notion (e.g.) »this is a post« is a positively ascertained one; how is it possible that it should turn out wrong? ‘The notion in a dream also was, just in the same way, a well ascertained one; previous to the awakening there was no difference between the two.’ You are wrong; for we find that (what we saw) in a dream, turns out wrong; but we find that (what we see) in the other case (i.e. in the waking state), does not turn out wrong. If you say that on account of the class-characteristic (cognition as a

¹ *ita evā ’kṛṣya ’cāryeṇa Śābarasvāminā pramāṇalakṣaṇe varṇitam.*

genus) (the same predication) will hold good in the other case, (we reply as follows). If you mean that the cognition in a dream is wrong because it is a cognition, then of course the cognition of a waking man must be wrong too. But if cognition is (taken to be) the reason that something is so as it is cognised (and not different), then it is impossible to say that this cognition (viz. one in a dream) is different (i. e. wrong) because it is a cognition. (Not from the nature of cognition by itself), but from something else we come to know that cognition in a dream is wrong on account of its being opposed to truth. 'How do you ascertain this?' In the following way because a sleepy mind is weak, sleep is the reason for the wrongness (of cognition) in a dream; in dreamless sleep it (the mind) is absent altogether; for one without any consciousness whatever, is said to be in dreamless sleep. Therefore the cognition of a waking man is not wrong. 'But the sensorium of a waking man also may be vitiated by some defect.' If so, the defect may be found out! 'While one dreams, a defect is not found out.' It is; for on awaking we find out that the mind had been vitiated by sleep."

The problem discussed in the preceding passage is the same as that in N.D. iv, 2, 31—33, see above, p. 12. The point at issue is this. Perception in a dream cannot be said to be wrong, unless some other perception is admitted to be true, in contradistinction to which that in a dream could be recognised to be wrong. As the opponent maintains that all cognitions are wrong, his argumentation from dreams is without meaning. I now continue the translation of the passage from the *Vṛtti-kāra*:

"(The opponent says: 'The cognition itself) is a *void*. For we do not perceive a difference of form in the object and the idea of it; our idea is *directly* perceived, and therefore the so-called object which should be different from the idea, is a non-entity.' (Answer:) Well, this would be the case, if the idea had the form (or shape) of its object. But our idea is without form, and it is the external object which has the form; for the object is directly perceived as being in connexion with a locality outside of ourselves. An idea caused by perception is concerned with an object, and not with another idea; for every idea lasts but one moment, and does not continue to exist while another idea comes up. (The opponent says:)

‘While this second idea is originating, it becomes known (to the first idea) and, at the same time, it makes known to it the object, just as a lamp (illuminates and makes thus known things).’ We reply: This is not so. For before the object has become known, nobody is conscious of having the idea, but after the object has become known (to us), we become aware by *inference* that we have an idea concerning it; it is impossible that both these processes should be simultaneous. (The opponent says:) ‘We do not contend that we know the object before the idea has originated, but after it has originated; therefore the idea originates first, and afterwards the object becomes known.’ (We reply:) Quite right! The idea originates first, but it is not the idea that first becomes known. For as will occur occasionally, we say of an object which we do know, that we do not know it.¹—Moreover it is the very nature of every idea to be always and necessarily bound up with the name of (or a word denoting) its object. Therefore an idea is ‘intimately connected with a name,’ but that which is ‘not intimately connected with a name’ is termed ‘directly perceived.’²—And furthermore, if (the object and the idea) had the same form, this would sublate the idea and not the object which is directly perceived. But there is no such uniformity (between the object and its idea, as you assume); for by *inference* we become cognizant of the intrinsically formless idea, but we *directly perceive* the object together with its form. Therefore cognition is based on the object.—And furthermore, the notion of (e. g.) a piece of cloth has an individual cause (in this sense, that we have the idea of the cloth) only when threads form the material cause (of the object, viz. the cloth). For if this were not the case, a man of sound senses might

¹ We are not conscious of having an idea concerning it.

² The printed text is wrong. Instead of ‘*tasmān na vyapadeśyā buddhiḥ, aryapadeśyam ca nāpratyakṣam*’ we must read ‘*tasmān nāryapadeśyā buddhiḥ, avyapadeśyam ca nāma pratyakṣam*.’

What is meant is this. An abstract idea is always coupled with a word expressing its object; but this is not the case when we directly perceive a thing. Therefore perception is thus defined in N.D. i, 1, 4: *indriyārthasannikarṣotpannam jñānam aryapadeśyam aryabhicāri vyavasthāyātmakam pratyakṣam*. Instead of *aryapadeśyam* the Buddhists say more accurately *kalpanāpoḍham*. The definition of *pratyakṣa*, Nyāyabindu I, is *pratyakṣam kalpanāpoḍham abhīrāntam*; and *kalpanāpoḍha* is defined (ibidem) *abhihāpasamsargayogyapratibhāsapratītiḥ kalpanā, tayā rahitam*.

have the notion of a jar though threads had been used (in the production of the object in question); but that is not the case.¹ Therefore cognition is not without foundation (in external objects), and consequently direct perception does not convey erroneous knowledge."

In this part of the passage from the Vṛttikāra, the opponent whose arguments are refuted is without doubt a Śūnyavādin. This is not only the opinion of Kumārila (see original, p. 268 to 354, translation, p. 148—182), but it is unmistakably indicated by the word, with which this part opens, viz. *śūnyas tu*. But if we consider the arguments brought forward, by themselves, we might be led to believe that their object is to prove that only the idea has real existence. And on the other hand in the first part the illusory character of all ideas or cognitions is discussed; and this is properly the view of the Śūnyavādins. Nevertheless Kumārila would make us think that the Vijñānavādins are combated in this first part to which he gives the title Nirālambanavāda (see original, p. 217 to 268; translation, p. 119—148). At first sight the text itself seems to speak in favour of his view; for it opens with the opponent's statement that the *pratyayas* are *nirālambana*. But very weighty reasons prove, in my opinion, that Kumārila's view is wrong. (1) As said above, the problem discussed in the first part of our text is the same as in N.D. iv, 2, 31—33, and we have demonstrated above that not only these Sūtras, but also Vātsyāyana's comment on them have in view the Śūnyavāda only. (2) The technical terms peculiar to the Vijñānavāda, e. g. *viññāna*, *ālayaviññāna*, *pravṛttiviññāna*, *vāsanā*, are absent from our passage, and instead of them only such words as *pratyaya*, and *buddhi*, and *jñāna* (which are common to all Indian philosophers) are used. (3) The only argument discussed is that waking-cognitions being like dream-cognitions are likewise illusory, and as has already been said, this is not an opinion which is peculiar to the Vijñānavādins. (4) The division of the whole passage into two parts, of which the first combats the Nirālambanavāda, and the second the Śūnyavāda, is quite arbitrary. There is in truth but one subject of dis-

¹ The meaning of this argument is that the object is not caused by the idea, but it has a cause which is independent of the idea, viz. the material from which the object or the thing is produced.

cussion in the whole passage, viz. that which is stated at the beginning of the first part, and which is repeated at the end of the second: *nirālambanah pratyayah*. And therefore the whole text must be directed against the Śūnyavāda because this is avowedly the case in the second.¹

In the introductory remarks it has already been explained how later commentators came to interpret a refutation of the Śūnyavāda as one of the Vijñānavāda. If radical Scepticism, represented by the former, attacked the validity of perception as a means of true knowledge, it is natural that it brought forward arguments which might be used also by pure Idealism, represented afterwards by the Vijñānavāda. But it is worthy of note that all those arguments on which the Vijñānavādins based their idealistic system, had already been advanced by the Śūnyavādins. Thus it is evident that the Vijñānavāda was potentially contained in the Śūnyavāda, and that Asaṅga and Vasubandhu, who founded the idealistic school of Buddhist philosophy, were largely indebted to their predecessors.

The result of the preceding inquiry, viz. that the controversy in the passage from the old Vṛttikāra is about Śūnyavāda opinions only, *a fortiori* holds good with the Vedānta Sūtras also. But that passage may also serve us as a commentary on B.S. ii, 2, 28—32. I have above identified conjecturally our Vṛttikāra with Bodhāyana who wrote a Vṛtti on B.S.; if this be true, it is most likely that in our passage he should have given the essence of his comment on the quoted Sūtras in B.S., which are concerned with the same problem. But if my conjecture is not accepted, then the case is similar to that of Śabarasyāmin, who, when expounding the Ātmavāda in his Bhāṣya on M.S., anticipates the Sūtras of B.S. in which this topic is discussed. In the same way our author who wrote

¹ I draw attention to another passage, p. 14f., though it is not conclusive for the question in hand. There the Vṛttikāra discusses the problem about the meaning of words, and touches the problem of the whole and its parts. The opponent denies that there is such a thing as a wood, a herd, &c., and goes on to object to perception as a means of true knowledge 'the trees also are non-existent.' The answer is: "If you say this (we need not enter into a renewed discussion), for this view of the Mahāyānikas has already been refuted" (*pratyuktaḥ sa mahāyānikah pakṣaḥ*). This is apparently a reference to the passage translated in the text, and the followers of the Mahāyāna are spoken of without the distinction of Madhyamikas and Yogācāras.

the Vṛtti on M.S. must have regarded Pūrva and Uttara Mimāṃsā as the two interconnected parts of one uniform system; and when he treated a subject which properly belongs to the Uttara Mimāṃsā, he must have treated it in conformity with the latter. We actually find in the passage from the Vṛttikāra the substance of a commentary on B.S. ii, 2, 28—32, disposed in nearly the same order as that of those Sūtras, as will now be proved. The substance of the first part of the passage is epitomised in Sūtras 28 and 29: *nā 'bhāva upalabdheḥ; vaidharmyāc ca na svapnādivat*. We may paraphrase these two Sūtras in accordance with the explanation of the Vṛttikāra as follows: "The objects of cognition are not non-entities (i. e. cognition is not without foundation in the external world: *na nirālambanaḥ pratyayaḥ*), because we actually perceive external objects. 28. Nor is our cognition similar to dreams, &c., because there is a real difference of cognition in the state of waking and that of dreaming 29" The next two Sūtras contain in a condensed form the substance of the second part of our passage, *na bhāvo 'nupalabdheḥ* 30. "(An idea) cannot be the real object (underlying cognition, as proved in Sūtras 28 and 29), because (the idea) is not the object of direct perception." In the passage from the Vṛttikāra the opponent maintains: 'our idea is directly perceived (*pratyakṣā ca no buddhiḥ*), and the author refutes him by showing that an idea is not perceived, but that we become aware of having an idea by inference. This is the substance of Sūtra 30. The next Sūtra: *kṣaṇikatvāc ca* (31): "And because cognition has but momentary existence" is explained by the Vṛttikāra in the passage beginning: 'for every idea lasts but one moment' (*kṣaṇikā hi sū*). The meaning is of course that one idea cannot perceive another; for while the first exists, the second has not yet come into existence; and when the second has come into existence, the first has ceased to exist. The last Sūtra: *sarvadhā 'nupapattis ca* (32) "And because it is unreasonable in every way" gives occasion to the Vṛttikāra's remarks beginning with 'But there is no such uniformity' (*api ca kāmam, &c.*).

Thus it will be seen that with the help of the passage from the Vṛttikāra we can fully and consistently explain the original Sūtras. And I venture to presume that this interpretation comes nearer the meaning of the original, than that given either by Śaṅkara or Rāmānuja: for these commentators living

several centuries after the Vṛttikāra did violence to the text because they felt obliged to introduce into their comments the substance of controversies which happened long after the time of the Sūtrakāra.

The preceding inquiry has proved that the Śūnyavāda only has been confuted in the Brahma Sūtras and in the Vṛtti quoted by Śābarasvāmin. These two works must therefore have been composed in the period between 200 and 500 A.D. according to what has been said in the beginning of this paper. I am inclined to think that Śābarasvāmin also must be assigned to the same period, since he also appears to ignore the Vijñānavāda and to refer to the Śūnyavāda when controverting the Buddhist denial of the soul (p. 20f.). There a Buddhist combats the argument that knowledge (*viññāna*) presupposes a knower (*viññātṛ*), and explains that knowledge and memory can be accounted for by the assumption of *skandhas* or rather a *santāna* of momentary *skandhas*. He concludes: *tasmāc chūnyāḥ skandhaghanāḥ*, "therefore nothing real is behind the *skandhas*." This doctrine is of course common to all Buddhists, but the expression used here, *śūnya*, seems to betray the Śūnyavādin. And besides, in this controversy, especially where the real meaning of *aham*, is discussed, a Vijñānavādin would have introduced his term *ālayaviññāna*; but no special terms of the Vijñānavāda are used by Śābarasvāmin. It is therefore probable that he wrote before the establishment of the Vijñānavāda. His archaic style also speaks in favour of an early date.¹

3. Yoga.

In Yōga Sūtra, iv, 15 f., the Buddhist denial of the external world is briefly discussed. Sūtra 15: *vastusāmye cittaḥedāt tayoṛ viviktaḥ pañthāḥ*. "Since the same object (is perceived by many persons and) causes various impressions on their mind, they (i. e., the objects and the ideas caused by them) must be two different things." This is apparently a refutation of the Nirālambanavāda, but it does not appear whether it is intended against the Śūnyavāda or the Vijñāna-

¹ Cf. Bühler in SBE., vol. xxv, p. CXII. After the preceding discussion it is perhaps superfluous to state that I cannot subscribe to the exaggerated chronological estimate of that scholar.

vāda.¹ Sūtra 16: *na cai 'kacittatantram vastu; tad apramāṇakaṃ, tadā kiṃ syāt?* "Nor can the existence of an object be dependent on the mind of *one* observer; for when (his mind being absent) it is not observed at all, (pray) what would become of the object?" (cf. S.S. i. 43) Here, I think, the meaning of the Sūtra will be best understood, if we assume the opponent to be an adherent of the Vijñānavāda. For in that philosophy the *ālayavijñāna* which represents the self-consciousness of the individual person, contains the *vāsanās* (= *saṃskāras*) which becoming mature (*paripāka*) produce the *pravṛttivijñāna* or the thoughts concerned with objects.² According to this theory the object is dependent on *pravṛttivijñāna* or, in common language, on the mind of the observer.³ If this interpretation is right, Patañjali must be later than the middle of the 5th century A.D. At any rate he cannot be earlier than the 3rd century A.D.

Even the earlier of these two dates is at variance with the prevailing opinion that Patañjali the author of the Yogasūtra is the same Patañjali who composed the Mahābhāṣya. For Patañjali is said to have written the Yogasūtra, the Mahābhāṣya, and a work on medicine. This tradition, however, cannot be traced to an ancient source.⁴ Nevertheless European

¹ In the Bhāṣya on the preceding Sūtra we find the same argument about things seen in a dream with which we are already familiar. Vācaspatimiśra in the Tīkā ascribes this argument to the Vijñānavādin (cf. above, p. 11), but he says expressly that it has been introduced by the Bhāṣyakāra without its being warranted by the Sūtra (*utsūtra*).

² Sarvadarśanasamgraha, Anandasram edition, p. 15f.

³ Y.S. iv, 21 might be taken for a reference to the Vijñānavāda; but the commentators are apparently right in referring to the *mānasa-pratyakṣa* or *manovijñāna*, which seems to have been acknowledged by the older schools also. The definition in the Tīkā, however, agrees nearly verbatim with that in the Nyāyabinduṭīkā (*Bibl. Ind.*, p. 13, l. 11).

⁴ It occurs in a traditional verse which is quoted, as Professor J. H. Woods informs me, in the commentary on the Vāsavadattā by Śivarāma (p. 239 of the edition in the Bibl. Indica; Śivarāma wrote in the beginning of the 18th century, Aufrecht Cat. Cat., p. 652). According to Bodās (Tarkasamgraha, B.S.S., p. 24) this (?) verse is said to be from Yogabīja. It must be stated that the passage in the Vāsavadattā which refers to Patañjali alludes to his *oratorical* gifts only. Similarly, a verse in the Patañjalicarita, V, 25 (Kāvyamālā, Nro. 51), by Rāmaḥaṭṭa Dikṣita of the 18th century (cf. Aufrecht, l. c., p. 517), ascribes to him *sūtrāṇi Yogasāstre Vaidyakaśāstre ca vārttikāni*. Here he is identified apparently

scholars are inclined to give it credit, e. g. Lassen, *Ind. Alt.*, I², p. 999, Garbe, *Sāṅkhyaphilosophie*, p. 26, note, and *Sāṅkhya und Yoga*, p. 36, and others; and accordingly they place Patañjali in the 2nd century B.C. But it can be shown on internal evidence that the author of the Mahābhāṣya cannot be identical with the author of the Yogasūtra. It is worth while definitely to establish this point.

Professor Garbe admits that there are no special coincidences between the language of the Yogasūtra and the Mahābhāṣya, and accounts for this want of agreement by the difference of the subject of both works. But on the other hand we certainly might expect that the greatest grammarian of his age should have observed the rules of his grammatical work when he wrote another on Yoga. Yet in Y.S. i, 34 he writes *pracchar-danavidhāraṇābhyām* instead of *vidhāraṇapracchardanābhyām* as it ought to be according to the rule *laghvakṣaram* (i. e., *pūrvam*) in *vārttika* 5 of ii, 2, 34; and here the meaning of the two parts of the compound furnishes no reason for altering their grammatical order, as might perhaps be pleaded for the order in *sarvārthataikāgratayoḥ* iii. 11 instead of *ekāgratāsarvāthatayoḥ* as postulated by Pāṇini's rule *ojādyadantum* ii, 2, 33. A similar case is *grahīṭṛgrahaṇagrāhyeṣu* in i, 41. Vācaspatimiśra says when commenting on that Sūtra:¹ "the order of the members of the compound as given in the Sūtra is irrelevant, because it is opposed to the order required by the subject (viz. *grāhyagrahaṇagrāhīṭṛ*)." Now grammar is in favour of that very order which is also required by the subject; for this order is in accordance with Pāṇini's rule: *alpāctaram* ii, 2, 34: "In a Dvandva the member of fewer syllables should come first." And though a deviation from this rule might be defended, still the grammarians seems to have regarded it as an irregularity better to be avoided.² At any rate our

with Caraka. This is expressly done according to Bodās (l. c.) by the grammarian Nāgeśa, who lived in the 18th century, in his *Vaiyākaraṇa-siddhāntamañjūṣā* (cf. Aufrecht, *Cat. Cat.*, s. v.).

¹ *tatra grahīṭṛgrahaṇagrāhyeṣu iti sautraḥ pāṭhakramo 'rthakramavirodhān nā 'daraṇīyaḥ*.

² Patañjali discusses the question whether the rule *alpāctaram* applies to compounds of more than two members, to which alone the comparative *alpāctaram* would seem to apply. He adduces two verses which contain three-membered dvandvas: *mrdaṅgaśaṅkhatūnavāḥ* and *dhana-patirāmakeśavānām*. Kātyāyana in *vārttika* 1 accounts for these ex-

case would have given cause to a grammarian to consider the order in which he should place the members of the compound, and he certainly would not have chosen that order which could be impugned for reasons derived from grammar *and* from the nature of the subject. The reason why the author of the Sūtra placed *grahītr* first in the dvandva, was perhaps a linguistic instinct that words not ending in *a* or *ā* should come first, a rule which grammarians restrict to words ending in *i* and *u* (*dvandve ghi* ii. 2. 33).

On the other hand it can be shown that the author of the Mahābhāṣya held philosophical ideas which differed considerably from those of Yoga and Sāṅkhya. Commenting upon *Vārttika* 53 ad i, 2, 64 he discusses a *kārikā* on the meaning of gender: the feminine denotes the congelation (*saṁstyā·a*), the masculine the productivity (*prasava*) of the qualities (*guṇas*): sound, touch, colour, taste, and smell. "All individual things (*mūrtayas*) are thus constituted, they are qualified by congelation and productivity, possessing sound, touch, colour, taste, and smell. Where there are but few qualities, there are at least (*avaratas*) three: sound, touch, and colour; taste and smell are not everywhere." This is a very crude theory about the qualities and one that is very far removed from the refined speculations of the Śāṅkhyas and Yogas about the *tanmātras* and *mahābhūtas*.—Therefore, since the author of the Yogasūtra does not conform to the grammatical rules taught by the author of the Mahābhāṣya, and because the latter is ignorant of the philosophical views of the former, they cannot be identical, but must be two different persons.

Having shown that the only argument for the great antiquity of the Yogasūtra is fallacious, I shall now bring forward internal evidence for a rather late date of that work. The Yogaśāstra of Patañjali is described as being part of the Sāṅkhyasystem (*yogaśāstre sāṅkhyapravacane*); and it is well known that it generally conforms to the Sāṅkhya. But there are some Yoga doctrines which differ from the Sāṅkhya. Yoga admits the Īśvara, while Sāṅkhya is essentially atheistic; and

ceptions by assuming that the two last members are a dvandva (*sāṅkhatūnava*) and form the second member of the whole dvandva (*atantre taranirdēṣe sāṅkhatūnavayor mṛdaṅgena samāsah*).

this peculiarity of the Yoga seems to be very old, since it is mentioned in so ancient a work as the *Mahābhārata* (xii. 300. 3ff.). But there are other Yoga doctrines not countenanced by Sāṅkhya¹ which are clearly adoptions from other systems. They are the following:

(1) The doctrine of Sphoṭa has been adopted from the *Vaiyākaraṇas*; it is expounded in the *Bhāṣya* ad iii. 17. This theory is however not directly mentioned in the *Sūtra*, and its introduction rests entirely on the authority of the *Bhāṣya*. (2) The doctrine of the infinite size of the *antaḥ-karaṇa* seems to have been adopted from the *Vaiśeṣika* philosophy (*ātman*). It is given in the *Bhāṣya* on iv. 10 and there ascribed to the 'Ācārya.' (3) The atomic theory which originally belonged to the *Vaiśeṣika*,² is clearly referred to by Patañjali in i. 40 (cf. *Bhāṣya* on iii. 44). (4) The doctrine that time consists of *kṣaṇas*, which was first put forth by the *Sautrāntikas*, is clearly assumed in iii. 52, though the details are explained in the *Bhāṣya* only.—The *Sphoṭavāda* and the *Manovaiśvavāda* (1. and 2.) may be later additions to the system, but the *Paramāṇuvāda* and the *Kṣaṇikavāda* must be ascribed to Patañjali and cannot be later than him. That he did adopt them, directly or indirectly, from the *Vaiśeṣikas* and *Buddhists*, though of course not in their original form, presupposes that these doctrines had somehow ceased to be shibboleths of hostile schools, and that the general idea underlying them had been acknowledged by other philosophers too. We know that this has been the case with regard to the atomic theory which has also been admitted by *Buddhists*, *Jainas*, *Ajīvakas*, and some *Mīmāṃsakas*.³ The *Kṣaṇikavāda*, in an altered and restricted form, has been adopted by the *Vaiśeṣikas*. For according to them some qualities (*guṇas*) exist for three *kṣaṇas* only, e. g., sound originates in one *kṣaṇa*, persists in the second, and vanishes in the third. This is a kind of *Kṣaṇikavāda* so changed as to avoid the objections to which the original doctrine was exposed. Still it must be remarked that even this altered form of the *Kṣaṇikavāda* is not yet found in the

¹ See Garbe, *Sāṅkhya und Yoga*, p. 49 ff.

² Cf. *Encyclopædia of Religion and Ethics*, vol. i, p. 199 ff.

³ See my article quoted in the last footnote.

Sūtra,¹ but is first taught in the *Praśastapādabhāṣya*, p. 287.—This adoption of originally heterodox doctrines by Patañjali therefore unmistakably points to a relatively modern time, and thus it serves to confirm the result at which we arrived by examining the allusions to Buddhist doctrines contained in Y.S.; namely, that the *Yogasūtra* must be later than the 5th century A.D. It is probably not far removed in time from Īśvara Kṛṣṇa, the remodeler of Sāṅkhya.

¹ Nor can an objection be raised against this date from the remaining literature of the Yoga. For the *Bhāṣya* by Vyāsa, which is next in time to the Sūtra, contains nothing that would make the assumption of an earlier date necessary. Garbe places Vyāsa in the seventh century (l. c., p. 41); and though his estimate is supported only by a legendary account of Vyāsa's pupils, still it is not improbable in itself.

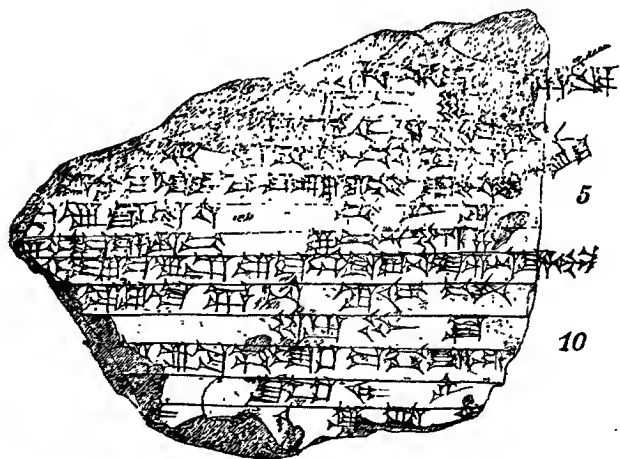
The results of our researches into the age of the philosophical Sūtras may be summarized as follows. N.D. and B.S. were composed between 200 and 450 A.D. During that period lived the old commentators: Vātsyāyana, Upavaṣa, the Vṛttikāra (Bodhāyana?), and probably Śabarasyāmin. V.D. and M.S. are about as old as, or rather somewhat older than, N.D. and B.S. Y.S. is later than 450 A.D., and S.S. is a modern composition.

¹ V.D. ii. 2. 31 teaches that sound is produced by conjunction and disjunction and sound. This is the germ of an undulatory theory of the transmission of sound in India; but the details of this theory, containing the above mentioned doctrine of the three *kṣaṇas*, are not yet worked out in the Sūtra.

Hilprecht's Fragment of the Babylonian Deluge Story
(Babylonian Expedition of the University of Pennsylvania, Series D, volume V, fasc. I).—By GEORGE A. BARTON, Bryn Mawr College, Bryn Mawr, Pa.

ON Saturday morning, March 19th, the daily press of Philadelphia and other cities contained announcements of the discovery, by Professor Hilprecht, of a new version of the story of the deluge, which antedated all the accounts previously found and which vindicated the correctness of the statements of the Priestly Document of the Pentateuch. Interest was increased when in the *Old Penn Weekly Review of the University of Pennsylvania* of March 19th Dr. Hugo Radau, commenting on the discovery, wrote: "It is safe to say that this publication, based upon one of the most remarkable finds in the Temple Library of Nippur, is destined to usher in a new period in the history of religion."

The speedy publication of the tablet itself together with Prof. Hilprecht's interpretation enabled us to examine both in detail.



The Nippur version of the Deluge Story
 (From *The Babylonian Expedition of the University of Pennsylvania, Series D, vol. V, fasciculus 1, Philadelphia, 1910*).

The text of the tablet is given below followed by Professor Hilprecht's transliteration and translation as they appear on pp. 48 and 49 of *The Babylonian Expedition of the University of Pennsylvania*, Series D, Volume V, fasciculus 1 (Philadelphia 1910).

(p. 48) Transliteration.

1. (?) -ša(?) -ši-il(?) i-(?) -... (?) -ka
2. a-pa-aš- šar
3. ka-la ni-ši iš-te-niš i-za-bat
4. -ti la-am a-bu-bi wa-ši- e
5. ..(?) -a-ni-ma-la i-ba-aš-šū-ūlu-kinub-bu-kulu-pu-ut-tu hu-ru-šū
6. ..^uelippu ra-be-tu bi-ni- ma
7. ..ga-be- e gab-bi lu bi-nu-uz- za
8. ..ši-i lu ^umagurgurru ba-bil- lu na-aṭ- rat na-piš-tim
9. -ri(?) zu- lu-la dan-na zu- ul- lil
10. te-ṣp- pu- šū
11. -lam(?) ū-ma-am ši-rim iṣ-sur šá-me-e
12. ku-um mi- ni
13. -(?) u ki[n]- ta ru(?) -.....
14. u]

(p. 49) Translation.

1. "thee,
2. ... "[the confines of heaven and earth] I will loosen,
3. ... "[a deluge I will make, and] it shall sweep away all men together;
4. ... "[but thou seek]life before the deluge cometh forth;
5. ... "[For over all living beings], as many as there are, I will bring overthrow, destruction, annihilation.
6. "Build a great ship and
7. "total height shall be its structure.
8. "it shall be a house-boat carrying what has been saved of life.
9. "with a strong deck cover (it).
10. ... "[The ship] which thou shalt make,
11. ... "[into it br]ing the beasts of the field, the birds of heaven,
12. ... "[and the creeping things, two of everything] instead of a number,
13. "and the family
14. ... "and"

In the present paper it is proposed: 1. To examine the interpretation of the text. 2. To discuss the evidence for the age of the document, and 3. To discuss its bearings on the Bible.

1. As to the interpretation:

In line 1 Hilprecht interprets only the last sign *ka*, rendering it "thee." In the absence of what preceded we do not know whether this is right or not. Even if a pronominal suffix, it was, perhaps, dependent on a noun, and to be rendered "thy."

In line 2 the only legible syllables are *ap-pa-aš-šar*, "I will loosen" or "let loose." Hilprecht supplies before it, *uṣurā-* (or *kippāt*) *šumē u iršitim*, and renders: "the confines of heaven and earth I will loosen." He refers for authority to Jensen in KB., VI, 520, where Jensen quotes a conjectural emendation made by Haupt in Schrader's KAT² to line 2 of DT, 42, published in Haupt's NE, p. 131. What really stands in that text is *kima kip-pa-ti*. No mention of heaven and earth appears on that tablet, nor the verb *ap-pa-aš-šar*. To base a conjectural emendation on another conjectural emendation to another passage which stood in another context, is insecure ground.¹

In line 3 the words that stand are very clear: *ka-la ni-ši iṣ-te-niṣ i-za-bat*, "all the people together it shall seize." *i-za-bat* being clearly for *i-ša-bāt*, the future of *šabātu*, "to seize," "take."² While Hilprecht recognizes the "possibility" of this reading, he "prefers" to regard it as from the stem *šabātu*, "to beat," "to strike." Why this common form, written as it often is in the time of the Cassites and of Hammurabi, should be discarded for one that presupposes the difficult phonetic change of *š* to *z* and the unnecessary change of *t* to *t*, is because Jensen had noted (KB., VI, 531), that *šabātu* was the technical term used of the deluge!

¹ Hommel, who has defended Hilprecht's main positions in articles published in the *Frankfurter Zeitung* of April, 19, 1910 and the *Expository Times* for May, 1910, improves upon Hilprecht's rendering by boldly inserting from Gen. 7¹¹ the words "the springs of the deep", making the line read, "the springs of the deep will I loose". Bezold. *Frankfurter Zeitung*. May. 21, 1910. renders "I will loose a bann". Prince and Vanderburgh AJSL, XXVI (July, 1910). p. 305, note that it is ordinarily used of loosening a curse. It is clearly uncertain how the line began.

² So also Prince and Vanderburgh.

In line 4 we can make out the signs: *ti la-am a-bu-bi wa-se-e*. Disregarding the first sign the three remaining words clearly mean, as Hilprecht has translated them, "before the deluge comes forth." The *ti* belongs to a lost word. Hilprecht fills it out *u at-ta-ma se'-i* (or *bul-lit*) *nap-ša-ti* on the ground that in the "first Nineveh version" 11, 25 ff. these phrases appear. A part of them do appear there, it is true, but in a different order. In reality no one knows what stood at the beginning of this line. *Ti* might belong to any feminine or abstract noun.

Of line 5 Hilprecht has correctly transliterated the visible signs, and disregarding the *a-ni* at the beginning, which belong to a lost word, his rendering of the remainder ("as many as there are, I will bring overthrow, destruction, annihilation") may pass. What is to be supplied at the beginning is uncertain. Hilprecht's guess may in this case be right.

In lines 6 and 7 Hilprecht wisely refrains from filling out the broken lines,¹ and as his rendering of the Semitic is possible no comment is necessary.

In line 8, however, we come upon more difficulties. The sign which he renders *bil* certainly does not have that value. It is in reality two signs *šum-ša*.² The preceding sign, which Hilprecht reads *ba* may be *ma*. The sign which he reads *at* is probably a carelessly written *ši*. We should, therefore, probably read . . . *ši-i-lu* ^{1st} MA-GUR-GUR-*ma šum-ša lu-na-ši-rat na-piš-tim*, . . . "a GUR-GUR³ boat indeed is its name, verily it is a savior of life". Perhaps we should render . . . "a GUR-GUR boat, and its name is *Lu-naširat napistim*". Evidence that the Babylonians gave such names to their boats is, however, wanting. The three signs after GUR-GUR

¹ Not so, however, Hommel. Taking a hint from Gen. 6¹⁴ he supplies in line 6 "Take wood and pitch", so as to make the whole "Take wood and pitch and build a great ship"! In line 7 he also supplies from Gen. 6¹⁵ the word "cubits" and reads "and . . . cubits be its complete height".

² In all the writer's researches for his forthcoming volumes on the *Origin and Development of Babylonian Writing* he has met with no instance of *bil* made in this way in any period of the writing. Professor Clay, who has edited as many documents from the Cassite period as any other living scholar agrees with the writer that the reading is *šum-ša*. Bezold questions Hilprecht's reading, but suggests no other.

³ Prince and Vanderburgh, *op. cit.* show that we should not read "house-boat", but a "navigable vessel", i. e. one that can be steered without difficulty.

might also be read *ba-taq-ša* = "its crack". Were we sure that the line referred to stopping the cracks with pitch, this would be attractive. The line is too broken for certain interpretation, but Hilprecht's interpretation is clearly wrong.

Hilprecht renders line 9 (. . . . *zu-lu-la dan-na zu-ul-lil*), "with a strong deck cover it", and claims that this conclusively proves the ordinary rendering line 31 of the well known version, "upon the deep launch it," wrong. In this he is, perhaps, right, but his statement (p. 56) that צֹהַר (Gen. 6 16) means "roof" and not "window" is not new. It is found in Brown, Driver and Briggs, *Hebrew and English Lexicon*, 844a.

In line 10 Hilprecht's conjecture of "The ship" before *te-ip-pu-šu* is as probable as any other.

In line 11, we clearly have "the beasts of the field and the birds of heaven" referred to (*u-ma-am ši-rim iṣ-ṣur ṣa-a-mi*), and no fault need be found with Hilprecht's guess that we should supply at the beginning "Into it bring."

Upon line 12 Hilprecht stakes a great deal, and his treatment of it is really astounding. The only signs visible in the line are . . . *ku-um-mi-ni*. Hilprecht divides this *ku-um mi-ni*, and translates, "instead of a number". He then supplies from the P Document of the Old Testament, without even telling us what the Babylonian form of the words would be, "and the creeping things, two of everything," making the whole read: "[and the creeping things two of everything¹] instead of a number."

If now we compare the passage with what Hilprecht calls the Nineveh version 11, 84ff., it becomes certain that this rendering rests on a most uncertain basis. Ll. 84—86 of the copy in the British Museum tell of three classes of living things that went into the ship: *bu-ul ši-ri*, *u-ma-am ši-ri* ("cattle of the field, beasts of the field") formed one class. That class is represented in Hilprecht's tablet by "beasts of the field and birds of heaven," which forms a more beautiful line and avoids tautology. Another class was the "family" (*kim-ti*) of Par-napishtin which appears in the last fragmentary

¹ Hilprecht's friend Kittel has pointed out, *Theologisches Literaturblatt*, XXXI, col. 243 (May, 27, 1910), that one could as well supply "seven of everything" and obtain agreement with the J document. It would certainly be quite as justifiable as that which Hilprecht has done.

line of Hilprecht's tablet as *kin-ta*.¹ The third class, the artisans or people, was expressed by *um-ma-a-ni*. This class probably occurs in Hilprecht's text in the line under discussion (line 12), but he has not recognized it. We should read ...*ku um-mi-ni*, taking *ku* as the final syllable of some lost word. Probably that word is supplied for us in the fragment published by Père Scheil (cf. *Rec. de Travaux*, XX, p. 58, l. 20), in which we have the word *li-il-li-ku*. If now we supply the remainder of the missing word thus [*li-il-li*]-*ku um-mi-ni*,² we obtain: "let the artisans (or people) come." This rendering supposes that *ummi-ni*³ is the plural of a variant form of *ummâni*, just as we have *šurmîni* for *šurmâni* and *kurummâti* for *kurummâti*. *Mârî ummani*, of the Nineveh version shows that the Deluge writers did not regard the collective *ummani* alone as a sufficient plural.

More extraordinary and inexplicable still, however, is Hilprecht's note on line 12. He equates *mi-nu*, which we have shown to be a part of *um-mi-nu*, with the Heb. מין, "species," which occurs so often in the P document in the phrase למינה or למינהו, meaning "according to its kind," and claims that the occurrence of *minu* in his tablet in this connection proves that מין means "number." He further states that if we insert this meaning wherever מין occurs in the P document, the sense is improved; and on p. 65 of his pamphlet he actually translates Gen. 6²⁰, rendering למינה "instead of a number." ל in Hebrew never means "instead of;" even Hilprecht can find no Biblical parallel, all the corroborative passages which he cites

¹ Prince and Vanderburgh, (*op. cit.*) declare that Hilprecht has no right to read *Kin-ta* here. It is true that the tablet is crumbling at this point, but I see no reason for seriously questioning Hilprecht's reading.

² Bezold questions whether instead of *ku-um* we should not render ŠU-NIGIN *mi-ni*. "the total number". Prince and Vanderburgh read *kûm mi-ni*, "the dwelling of a number", understanding it to mean that the GUR-GUR boat shall be the dwelling of a number. Some may prefer one of these explanations to that offered above. The text is so fragmentary that we are all groping in the dark. These explanations, however, show how insecure Hilprecht's interpretation is.

³ The kindred word *ummâni*. "people", makes one of its plurals by the form *ummâni*, (HWB, 87a). A plural *ummi-ni* from a singular *um-mînu* would be analogous to this; it also finds analogy in the change of the plural ending *-an* to *-en*; cf. Delitzsch, *Assyrische Grammatik*, § 93, a). 3).

use ל, as he himself confesses, in the sense of "to" or "for."¹ The word מ, moreover, cannot possibly mean "number." One has but to substitute "number" for מן and "instead of" for ל in any random passage in Gen. 1 to see how absurd Hilprecht's contention is. Take, e. g., Gen. 1¹²: "Let the earth bring forth grass, herb seeding seed *instead of a number* and trees bearing fruit, the seed of which is in it *instead of a number*". What nonsense! Hilprecht endeavors (p. 57 ff.) to gain help for this impossible meaning by making it seem that Wellhausen and Delitzsch favor it. He says that Wellhausen had pronounced the word a riddle, but he gives no reference to a work of Wellhausen. The fact is he quotes the remark from Delitzsch, *Hebrew Language in the Light of Assyrian Research*, 1883, p. 70 f. and *Prolegomena eines neuen Hebräisch-Aramäischen Wörterbuches* p. 143. Delitzsch gives no reference for the remark, and Hilprecht evidently does not know where to find it in the voluminous works of Wellhausen. The statement looks very much like a free quotation on the part of Delitzsch of a remark of Wellhausen *Prolegomena zur Geschichte Israels*, 5th ed., p. 396 (cf. his English *History of Israel* p. 389). Wellhausen says: "מן (kind), a very peculiar word, especially in the form *leminehu*, is found outside this chapter [Gen. 1] and Lev. 14, Gen. 6²⁰ 7¹⁴, only in Deut. 14 and Ezek. 47¹⁰." That is all he says about it, and he clearly translates it "kind," never hinting that there is any doubt as to the signification, but only remarking that the word itself is peculiar.

As to Delitzsch, in his *Hebrew Language* (1883) he expressed the conjecture that it might be "ultimately derived from the Assyrian word "number." He would render e. g. Gen. 1¹²: "Let the earth bring forth grass, herb seeding seed according to its number," understanding the last phrase to be equivalent to the Assyrian "as many as there are." This conjecture, however, he withdrew in 1886 (*Prolegomena* p. 143), where he says: "I have expressed in *Hebrew Language* p. 70 f. the guess that originally it [מן] was borrowed from the Bab.-Assyr. *minu* 'number' ... I am quite prepared to give this conjecture up." It was a rash theory of Delitzsch's youth, which he abandoned twenty-four years ago.

As is well known, מן is the regular word in Jewish

¹ Compare the remarks of Kittel on this point, *op. cit.* note to col. 243.

Aramaic and Syriac for "species," "kind," and Professor Haupt has shown that it occurs in Assyrian also (see JAOS XXV 71).

We have now examined Professor Hilprecht's interpretation of the text, with the result, that, while in many of the less important parts of the little tablet his interpretation is sound, he has drawn too freely throughout upon his imagination in filling out the broken lines, and in the one passage upon which he lays most stress, as having a bearing upon Biblical criticism, he has not only hazardously rendered the cuneiform text, but filled out a broken line from the Bible itself in a most improbable way, and grossly mistranslated his Hebrew.

2. We now turn to the evidence for the age of the tablet. Professor Hilprecht claims that the tablet was composed between 2137 B. C. and 2005 B. C. He bases this claim on three kinds of evidence, A. The stratum in which the tablet was found, B. Palaeographical evidence, C. Linguistic peculiarities. Let us examine each of these in turn.

A. Hilprecht says on p. 1 of this Deluge publication, (i. e. *Bab. Exp. of the University of Pennsylvania*, Series D, Vol. V, Fasciculus I), that the tablet was found "while unpacking and examining two boxes of cuneiform tablets from our fourth expedition to Nippur." On p. 36 of the same publication he says: "it was found intermingled with the dated and undated tablets of the lowest of the three strata of 'Tablet Hill'".

Now the tablet was clearly found before Hilprecht himself reached Nippur, for he had not seen it until October 1909. Indeed, in a foot note on p. 1 he excuses himself for having overlooked it in Constantinople in 1901.¹ An important point

¹ The writer is reluctantly compelled to believe that Hilprecht's foot note is deliberately misleading and that the following statements of Hilprecht in the *So-called Peters-Hilprecht Controversy* are untrue. Hilprecht says on p. 191: "My examination at Constantinople of at least 40,000 tablets from the Third and Fourth Expeditions merely strengthened my conviction. And indeed in setting this number at 40,000 I do not mention enough, for I practically examined to some extent *every* tablet taken to Constantinople from both these expeditions". Again he says on p. 339: "I had personally examined *all* the tablets excavated by the fourth expedition in 1902". [*Italics, mine.*]

My reasons for doubting the truth of these statements are as follows:—

Dr. G. B. Gordon, who was appointed Director of the Museum of the University of Pennsylvania in February 1910, sent me an invitation on June 14th, 1910 to come and see what Babylonian material the Museum

is, that in BE., Series D, Vol. I, p. 509 Professor Hilprecht has himself said some interesting things about the methods of work followed by the fourth expedition before his arrival. He says: "Our knowledge as to how and precisely where the tablets were found is extremely limited. As I must depend exclusively on Haynes' official entries and records for this important question, I deem it necessary to submit a specimen of my only written source of information for the time prior to my arrival when most of the tablets were taken out of the ground. I quote literally from his diary. 'Jan. 16, 1900: 30 sound tablets from a low level in Tablet Hill' (To

contained. His letter stated that "these tablets are now accessible to all Babylonian scholars". I accepted his invitation and visited the Museum on June 17th. Dr. Gordon informed me then that a similar invitation had been sent to all American Assyriologists. In the basement room of the museum, where many boxes of tablets have reposed unpacked, some of them for twenty years, I saw a box of tablets from the fourth Expedition, which was just opened and the contents of which a workman was beginning to clean. Some of these tablets were wrapped in paper which had clearly been put about them while they were still damp, for it had dried on, and came off with the greatest difficulty.

I then recalled that Mr. Clarence S. Fisher, who was the architect of the fourth Expedition and who helped pack these tablets was once, while Fellow in Architecture at the University, asked to assist in unpacking some of these very boxes and had declared in an article in the *Philadelphia Public Ledger* of Feb. 4, 1907 that this paper was the same which they had wrapped about the tablets at Nuffar while they were yet wet. An examination of the boxes and the tablets convinced me that Mr. Fisher's statements are true, and that Hilprecht's explanation given in BE., XX, p. viii ff. and the *So-Called Peters-Hilprecht Controversy*, p. 307 ff., viz:—that the boxes were wet by rain in Constantinople will not hold.

Further, of tablets in the box which were not so wrapped, a large number were covered with mud and gypsum, sometimes to the thickness of $\frac{1}{4}$ inch. It is clear that no scientific examination of such tablets could have been made in Constantinople. In view of these facts no comment is necessary on the quotations from Hilprecht made above.

It is to be hoped that many Assyriologists will accept Dr. Gordon's invitation and obtain first hand evidence on this point as well as upon some of those mentioned below.

Since Professor Clay convinced the Museum authorities some years ago that Professor Hilprecht's carelessness had let a large number of tablets crumble to dust, H. has rigidly shut every one from this tablet room. The action of the new Director accordingly means much to science.

this statement Hilprecht adds a foot note which reads: "I cannot even find out in which section of the large mound he unearthed these particular tablets. Nor is the slightest indication given by him as to whether he worked in a room, or found the tablets loose in the earth, or in both.") To continue his quotation of Haynes' diary. "Many large fine fragments of tablets, 1 pentagonal prism, $7\frac{3}{4}$ inches long; its five sides from 1 to $2\frac{1}{6}$ inches wide." Three or four other quotations from Dr. Haynes' diary follow, all of the same import. The only definite statement is that the tablets were found at a 'low level' in "Tablet Hill."

Again, in the *So-Called Peters Hilprecht Controversy*, p. 196, after saying in substance that Dr. Haynes simply numbered his boxes of tablets 1, 2, 3, 4, etc., and that he (Hilprecht) could only determine their locality by the dates at which Dr. Haynes was digging in certain localities, as e. g. on the west side of the Shatt-en-Nil, Hilprecht continues: "It would have been useful for me if the marking had been such as would indicate also the height of the stratum¹ and the exact position; but Dr. Haynes could not attempt to do it, since he was alone in the field, and Mrs. Haynes never attempted to do it; consequently I must now infer . . . by other means, to which stratum the tablets belong".

If we turn now to p. 132 of the same work, we find that Hilprecht has there published the testimony of Mrs. Haynes,

¹ In connection with this declaration that no record was kept of the "stratum" the reader should compare a statement by Professor Hilprecht published in all the daily papers of Philadelphia on April 23rd, 1910. Hilprecht there declares that he only meant that Dr. Haynes did not keep a record of the exact position in which every single tablet had been found, and says that "the stratum of the temple library, the place of its discovery, and the precise number of boxes coming from a certain locality are absolutely known". The reader should note how this statement in part flatly contradicts that quoted in the text above, and should also note the adroit wording of the last part of the sentence. The word "stratum" is introduced here, so that a casual reader gains the impression that Hilprecht asserts that Haynes kept a record of the strata from which tablets came. While the sentence does give that impression, he could, if pressed later, say that he only declared that the *stratum* of the library was known. This is an excellent example of Hilprecht's habit of endeavoring by adroit wording to convey one impression, while he retains the power of declaring later that he did not say what he has seemed to say. It is this kind of writing that has destroyed the confidence of American scholars in him.

who was present when the so-called library was discovered. Her testimony shows that the general level at which tablets were found was known, but that the tablets were not found in strata at all. They were found, Mrs. Haynes says, in different rooms, dumped in such great heaps in the middle that the men could separate them only with the greatest difficulty, and that these heaps appeared as though the tablets had been thrown from shelves at the sides of the room. Imagine a library of account books thrown into the middle of the room from the shelves, would there be *strata* in it? If the books had been arranged chronologically on the walls, would they be chronological in the heap on the floor?¹

From these statements of Hilprecht himself it is clear that he has not in his possession any definite data about strata.

B. Hilprecht remarks (p. 3) that the "writing employed" (in the documents from the supposed stratum in question) "is the script of the early Babylonian period in its various varieties." This is a very vague statement. I venture to think that if the stratum referred to really existed, there are several varieties of early Babylonian writing that were not found in it — such, for example as those of Ur-Nina, Lugalanda etc. Every Assyriologist knows, however, that in the period of Hammurabi a variety of scripts were used. The laws of Hammurabi, for example, and many of his inscriptions, are written in a fairly archaic script — a script readily distinguishable from that of the time of Gudea, as Gudea's is from the earlier periods, but still fairly archaic. There are also scripts which approximate in archaic coloring to that of the laws, but side by side with these there came into use at this time a cursive script, which is indistinguishable from the script of the Cassite period, and many of the features of which persisted into the Neo-Babylonian period.

The writer has taken pains to compile a table, which is here reproduced, by means of which an intelligent idea of the bearing of palaeography upon the date of the tablet may be

¹ Since the above paragraph was written my visit to the Museum of the University of Pennsylvania mentioned in the previous note has afforded proof that the supposition as to the mingling of tablets from different periods in the boxes is true. Dr. Gordon allowed me to see four or five boxes the contents of which had just been cleaned, and this was true of each box.

scientifically estimated. In five successive columns 37 signs are arranged. The signs of col. i represent the time of the Second dynasty of Ur, with the exception of two which are taken from Gudea (Stat. B, vi, 34 and Cyl. B, xiv, 12). In col. ii are signs from a tablet in the Harvard Semitic Museum dated in the reign of Ellil-bani¹, one of the later kings of the dynasty of Isin, who ruled about 2100 B. C.—the very time from which Hilprecht claims that his tablet came. It is a business document. It is well known that business tablets were written in a less archaic script than that employed by the scribes of the same period for literary work, and yet the script of col. ii is much more archaic than that of col. iv in which are placed signs from Hilprecht's deluge fragment. In col. iii are collected signs from the Temple Archives of Nippur of the time of the First Dynasty of Babylon, published by Poebel in BE, VI, 2. In col. iv, signs from Hilprecht's deluge fragment, and in col. v, signs from the Cassite sign list compiled by Clay in BE, XIV.

The tablets published by Poebel in BE, VI, 2 were selected for comparison because they were written at Nippur. A comparison of Poebel's volume with Ranke's (BE, VI, 1) and Scheil's publications of texts from Abu Habba² reveals the fact that at the time of the First Dynasty of Babylon the scribes of Nippur were using a considerably more archaic script than the scribes of Sippar.

A comparison of the signs in this list produces the following results. Of the 37 signs compared, 9 (ŠAR, A, PA, NI, ŠI, PU, PI, LU, ŠU) undergo no marked development. They are the same in all the five columns. Twenty-one signs on Hilprecht's tablet agree closely with Cassite forms but show decided development over all the other columns, even over that containing signs from Nippur tablets of the first dynasty of Babylon. These signs are IŠ, AM, ŠI, E, UB, RU, RA, MA, ŠUM, ŠA, KAL (DAN), IL, TE, IB, UM, TA, KA, PIŠ, KIN, ZU, UL. Four signs (LA, TIM, NA, NU), have the same form as those of the first dynasty tablets and as the Cassite tablets also, but differ from the earlier periods. There

¹ A photograph of the tablet was kindly furnished me by Professor D. G. Lyon.

² *Une saison de fouilles à Sippar*, Paris, 1902.

<i>Dr. Riemer's Urkunden</i>	<i>Harvard Tablet from Nippur, time of Elil-bani Cir. 2100 B.C.</i>	<i>Tennifle Arch. of Nippur Third Dynasty B.E. VII. 2</i>	<i>Hilprecht's Deluge Fragment.</i>	<i>Cassite Clay's list B.E. XIV.</i>
135	7b	23 ²¹	l. 1	84
205	2a	72 ⁶	l. 2.	223
324	3b	1'	l. 2	240
68	8a	4 ¹⁰	l. 2	124
293	4b	8 ⁵	l. 3	52
165	4b	5 ²⁵	l. 3	184
92	4b	9 ¹⁶	l. 3	90
256	4b	45 ²³	l. 4	15
65	10b	22 ⁵	l. 4	132
194	2a	42 ¹¹	l. 4	206
227	2a	18	l. 4	67
108	2a	72 ²	l. 4	106
190	2a	4 ¹²	l. 4	218
315	16a	4 ¹⁴	l. 4.	246
56 ⁸	9b	37 ¹¹	l. 4	99
56 ⁸	9b	61 ⁹	l. 4	128
265	2a	35 ¹⁰	l. 5 ³	247
104	2a	12 ^{5/19}	l. 8	171
105	4a	8 ¹²	l. 8	161
98	5a	43	l. 5	24
23	11a	84	l. 6	196
156	1b	3 ¹⁰	l. 6	1048
272	7b	26 ^{W3}	l. 6	95
89	11a	31 ²²	l. 6 ⁷	152
299	1b	14 ¹⁴	l. 6	260
21	7b	10 ¹²	l. 6	21
94	11a	13	l. 7	59
14	10b	14 ¹	l. 7	167
237	6b	52 ²⁰	l. 7	34
261	1b	91 ¹⁴	l. 8	105
184	7a	57 ⁶	l. 8	71
298	7a	10 ²⁵	l. 9	244
131	7a	10 ³⁹	l. 9	723
157	7a	81 ⁸	l. 9	153
67	7a	12 ²⁵	l. 11	179
234	7a	12 ²⁵	l. 13	63
234	7a	12 ²⁵	l. 13	115

are but two signs (NE and BI) which differ from Cassite forms in favor of an earlier period, while one (KAB) is intermediate in form between forms of the First Dynasty and those of Clay's Cassite list.

Of the twenty eight signs which can be counted as evidence, therefore 26 favor the Cassite date as against two which are opposed to it. The evidence is 21 to 7 against a date earlier than the time of the First Dynasty. This is the verdict of palaeography concerning the date of the tablet. Had Hilprecht bought the tablet in the market so that one could plausibly connect it with Sippar, an earlier date would be more thinkable.

C. On p. 39 Hilprecht urges that the use of PI = *wa* and of binuzza = binûssa point to the period of the first dynasty of Babylon. It is true that these phenomena appear in first dynasty documents, but they also occur of the Cassite period, and in part of later periods.

With reference to PI = *wa* three remarks should be made.

1. PI is used in inscriptions of the First Dynasty both for *wa* and *we*. Thus in the laws of Hammurabi we have *a-PI-tum* for *a-wa-tum* and *a-PI-lu-tum* for *a-we-lu-tum*. The two usages go together; we find both in the Cassite period. Thus Kadashman-Elil in the El-Amarna letters writes the name of Amenophis III of Egypt *Ni-mu-PI-ri-ya* for *Ni-mu'-wa-ri-ya*¹

¹ In this connection it may not be out of place to remark, since Hilprecht has asserted in a newspaper article that in the El-Amarna letters PI = *a* never *wa*, that in the name *Ni-mu-wa-ri-ya* the consonant *w* occurs after the vowel *u* and before *a*, and would certainly be pronounced *wa*. The fact that the name is Egyptian and not Babylonian is no proof that in the form of it written in Babylonia the ordinary phonetic laws did not apply. The hieroglyphic Egyptian did not write the vowels. *Ni-im-mu'-wa-ri-ya* and *Ni-im-mu-wa-ri-ya* are attempts to represent the Egyptian *Nb-m' t-re*, the Egyptian vowels being unknown. In the Babylonian form *b* is assimilated to the following *m*, *t* is elided, and the vowel *a* follows *u*. It would be inevitable among a Semitic people that between the *u* and *a* a *w* should slip in to help the pronunciation. There is no more ground for doubting that PI was pronounced *wa* in this word because there was no *w* in the Egyptian form of the word than there is for supposing that *ya* at the end of the word was not pronounced *ya* because the Egyptian does not contain either letter of that syllable. The fact that in the *Tell el-Amarna Tablets in the British Museum*, No. 1, l. 2, the name is spelled *Ni-ib-bu-a-ri-a* in no way affects the above argument, as that letter was written in Egypt and does not represent the Babylonian pronunciation.

and *Ni-mu-PI-ri-ya* for *Ni-mu-wa-ri-ya* (see Abel and Winckler, *Thontafelfund von Tell-El-Amarna*, No. 1 : 1; 2 : 1). In BE, XIV, No. 58, 1 we also find *a-PI-lu-tum* for *a-we-lu-tum*. The same usages are also found in copies of the Greek period. In Reisner's *Sumerisch-Babylonische Hymnen*, No. 55, 69 we have *a-PI-tim* for *a-wa-tim*, and in No. 2 rev. 27 *a-PI-lu-tu* for *a-we-lu-tu*. It is clear, then, that where we find one usage we find the other.

2. The evidence just adduced shows that *PI* = *wa* is not a mark even of a First Dynasty date, to say nothing of a date in the time of the Isin dynasty, for it is found in the Cassite period and even in the Greek period.

3. *PI* is defined in II R, 39, No. 2, 14 as *a* where it is used in writing the word *a-su-u*—the very word under discussion in Hilprecht's tablet.¹ In I R, 52, No. 4, 3 *PI-aš-ru* stands for *a-aš-ru* (Cf. Ball, PSBA, X, 290). Here *PI* must equal *a*, for the root is a פ (פ). In the word *ti-PI-mat* (K, 5298, cf. AL³, p. 26, n.) *PI* might stand either for *wa* or *a*. In the Neo-Babylonian period it was used at Nippur, from which Hilprecht says his deluge tablet came, at the beginning of several words. Thus Nebuchadrezzar, BE, I, No. 85, i, 10 uses *PI-aš-rat* for *a-aš-rat*. Nabu-na'id, BE, No. 84, i, 6 has *PI-ši-ib* for *a-ši-ib*; in i, 15, *PI-aš-ru-um* for *a-aš-ru-um*; in ii, 33, *PI-ar-ka-at* for *wa-ar-ka-at* or *a-ar-ka-at*; in ii, 45, *PI-aš-ri-im* for *a-aš-ri-im*; and in ii, 52, *lu-u-PI-aš-si-im* for *lu-u-wa-aš-si-im* or *lu-u-a-aš-si-im*. It is not certain that any of these were pronounced *wa*, but when the sign was part of a פ word it may still have had the value *wa*; that, however, we cannot confidently affirm, for already in the time of the

¹ In connection with this passage it may be well to note an illustration of Professor Hilprecht's methods of answering his critics. Professor Clay, in an article published in the *Piladelphia Evening Bulletin* of April 16, 1910, had cited *PI (a)-su-u*, II, R, 39, No. 2, 14, but in printing it the typesetter had accidentally made the reference read No. 2, 4. Professor Hilprecht in the newspaper article of April 23, 1910, referred to above, showed that he recognized the real reference by remarking that *PI* here has the rare Neo-Babylonian value *a*, but in order to make Professor Clay appear ridiculous, he chose to translate II R, 39, No. 1, 4, which happens to be *pi-tu-u*, remarking this passage will doubtless be read by every beginner in Assyrian *pi-tu-u*, "to open" (namely, "the mouth"). It must be said that such an act is disingenuous, especially as he intimates that Clay may have intentionally misrepresented the case!

first dynasty of Babylon we find *wa-ar-hu-um*, "month" (King's *Letters and Inscriptions of Hammurabi*, No. 14, 5) by the side of *arhu* (No. 27, 10; cf. also *Laws of Hammurabi*, xxxix, 11, 15 and xliii 52 and Brockelmann's *Vergleichende Grammatik der semitischen Sprachen*, § 49, h, a). Apparently the initial *w* had begun to disappear very early.¹ As a result of observing these facts we may affirm that the one occurrence of PI = *wa* in Hilprecht's tablet (occurring in *wa-si-e*) does not prove that the tablet is earlier than the Cassite period, and that it may be that we should read *a-si-e* in which case we have a purely Neo-Babylonian form, which is not a mark even for a Cassite date.

In the Cassite period we have the following parallels to *binuzzu*: *Belit-šu-nu* (which would regularly become *Belit-su-nu*) is in BE, XV, 149, 38 written *Belit-zu-nu*; the same name with the loss of the *t*, according to another well known phonetic law, is spelled in BE, XV, No. 188, 1v, 20 *[Be]li-zu-nu* (cf. No. 195, rev. 26, where it is spelled *Beli-su-nu*), and *Enlil-uballit-su* is in BE, XIV, 33, 9 *Enlil-uballit-zu*. Outside of proper names the following examples may also be cited, viz: *qa-az-zu* for *qa-at-šu*, "his hand" occurs in BE, XV, No. 158, 5 and in the Kudurru of Melishikbu, i, 26, *Délégation en Perse*, II, opposite p. 98; also *pu-uz-zu* for *pu-ut-šu*, "in front of him" or "instead of him", BB, XIV, No. 11, 6.

Hilprecht also claims as a mark of the early date of his tablet the occurrence of the mimmation in two words, *širim* and *napištim*. It happens, however, that no more can be inferred from the mimmation of these words than from the use of PI for *wa*, since in both cases the mimmation continued to be used down to the time of Assurbanipal. *Širim* has the mimmation as late as the time of Nabu-na'id (see V. R. 63, 41^a), and *napištim* occurs in the annals of Assurbanipal, e. g. 1 R, 9, 33.

The philology of the tablet, then, no more than its paleography carries us back of the Cassite period. The fragment

¹ There is some uncertainty about the matter, as the word which scholars transliterate *arhu* is written ideographically; but that it should be transliterated without the initial *w* is the opinion of Scheil (*Délégation en Perse*, Vol. IV. pp. 114, 127), of R. F. Harper (*Code of Hammurabi*, pp. 92, 106 and 155), L. W. King (*op. cit.* III, 267), and Brockelmann (*Vergleichende Gramm. der sem. Sprachen*, § 49. h, e).

of the deluge story dated in the reign of Ammi-sadugga, discovered some years ago by Père Scheil and now preserved in The Morgan Library in New York City, still antedates by some centuries all other accounts of the deluge which are known.

3. We now come to the claim that this fragment contains a text so strikingly like that of the Priestly Document of the Pentateuch that the antiquity of the tradition of that Document is vindicated from the aspersions of critics. What little need be said upon this point has already been anticipated. Any resemblance, which the text of this document has been supposed to present to the P text over and above other Babylonian accounts of the deluge is based, as has been shown above, on an unscientific handling of the Babylonian text, a mistranslation of the Hebrew text, and upon pure imagination.

Post Script.

Since the above article was sent to press a German edition of the deluge fragment has reached me. It bears the title *Der neue Fund zur Sintflutgeschichte aus der Tempelbibliothek von Nippur* von H. V. Hilprecht, Leipzig, 1910. In this edition there are a number of new features which call for a few comments.

1. Bezold in the article quoted above had said that he had every reason to doubt that Hilprecht first saw this tablet in October 1909. Having no authoritative information as to the grounds of Bezold's doubt, and wishing to be fair to Hilprecht, this sentence was not referred to above. Authoritative information is now at hand, that Hilprecht wrote Bezold two years ago informing him that he was absolutely sure that he had found a fragment of the deluge story. Hilprecht would now have us believe (see p. 19 ff.) that this letter referred to "a new fragment of the Deluge tablet" mentioned as absolutely certain in the *So-called Peters-Hilprecht Controversy*, p. 289, which he had referred to in his English edition of *The Earliest Version of the Babylonian Deluge Story* (i. e. BE, Series D, Vol. V), p. 33 n. in these words: "Possibly we have another exceedingly small fragment of the Deluge Story from the second expedition, too small to be determined accurately."

One cannot but be grateful to Hilprecht for telling us that these two passages refer to the same thing. He has thereby revealed a standard by which to judge other confident state-

ments of his in the *So-called Peters-Hilprecht Controversy*. Scholars cannot be expected to attach a higher value to those statements than Hilprecht himself does.

A comparison of these passages tends strongly to confirm the conviction that Bezold's doubts were well founded.

2. Hilprecht endeavors on p. 19 of the new German edition to break the force of his former declarations concerning the fact that Dr. Haynes kept no adequate records of where the tablets were found. His remarks on this point are the same in substance as those printed in the newspaper articles of April 23rd, 1910, which have been disposed of above on p. 38.

3. We learn on p. 25 that Professor Lyon of Harvard sent Professor Hilprecht a copy of the tablet of Ellil-bani, which is quoted above, at the same time that he sent one to me. Hilprecht admits that the writing on this tablet is more archaic than on his fragment, but claims to know some unpublished material from Zambīia and Damiq-ilišu of the same dynasty which is not in such archaic writing.

In view of the evidence presented above, one must decline to give this much weight to this statement until the material is published.

Indeed there is no reason to believe that religious or mythological texts were written in Semitic as early as the dynasty of Isin.

4. On p. 50 Hilprecht says that my suggestion that the ku of ku um-mi-ni may belong to a form of the verb alāku is impossible in the context because it is not the technical term for entering a ship. The reader should note that it is shown above, p. 35 to occur in a deluge fragment in an analogous context. That it was the technical term for entering the ship I never implied.

5. In a foot note on p. 50 Hilprecht declares that when I wrote the first draft of the above article part of which was published in the *Philadelphia Ledger* of Apr. 3, 1910, I did not consult the cuneiform text of the Nineveh version of the Deluge but used Jensen's translation in KB, VI. His evidence is (forsooth!) that I rendered ummāni, "artisans or children" and Jensen renders it Handwerker(söhne).

The evidence presented has no connection whatever with the conclusion drawn. Every tyro in Semitic would know that Jensen's söhne is the translation of *mārî* in the phrase *mārî*

ummâni and that he bracketed it because it has no more significance than בני ישראל in the phrase בני ישראל, literally "children of Israel," but really "Israelites." To suppose that Jensen meant it as an alternative for "children" and to be misled by it, is a piece of reasoning worthy of Hilprecht himself! I cannot truthfully plead guilty to it. Hilprecht seems to be ignorant of the fact that in Muss-Arnolt's *Assyrian-Dictionary*, p. 58 a. *ummâni* = "young man" and that a number of new passages have come to light which bear out this meaning (See Jastrow's *Die Religion Babyloniens und Assyriens*, II, p. 657, n.4). It was in reality from pondering these passages that I was led to waver as to whether *ummâni* in the deluge fragment might not mean "children", but afterward abandoned the idea, because the "children" must be included in the "family" (*kintu*).

Naturally in working up the article I consulted Jensen's work along with that of other Assyriologists. Not to have done so would have been unscholarly, but this is no evidence for Hilprecht's false statement that I did not consult the original. If this reasoning were sound one could prove by it that Hilprecht cannot read cuneiform at all, for on p. 27 of his German edition, where his argument demands citations from the cuneiform texts, he cites only the transliterations of Knudtson and Jensen!

6. Hilprecht declares on p. 51 that my suggestion that *um-mi-ni* may be a variant of *um-ma-a-ni* is impossible. His words are: "eine solche Schreibweise ist für das Altbabylonische direkt ausgeschlossen".

With reference to this statement two remarks should be made:

1. The tablet is not Old Babylonian as has been convincingly proven above.

2. Whatever the tablet is Hilprecht himself (see p. 47) presupposes an analogous scribal change of *i* or *e* to *a* in *nâtrat*, on which he still insists instead of the more probable *našîrat*. Vowel changes seem to be perfectly legitimate when it suits his purpose, but otherwise they are impossible!

Some Rig-Veda Repetitions.—By MAURICE BLOOMFIELD,
Professor in Johns Hopkins University, Baltimore.

THE Rig-Veda contains repeated stanzas, hemistichs, and single verse lines (*pāda*) which amount to a total of between 1500 and 1600 *pādas*—more precisely about 1560. They are repeated an average of nearly $2\frac{1}{2}$ times, making a total of about 3560 *pādas*. This count does not include such as are repeated, for one reason or another, in the same hymn. Of such there are about 60, making a total of about 120, exclusive of rhetorical concatenations between successive stanzas; the latter also result in pairs that are so much alike as to be almost identical. Again, *a fortiore*, this count does not include refrain *pādas* which abound in the Rig-Veda. Of these there are just about 150, repeated a total of about 1000 times. Thus the total of repeated *pādas* in the RV., aside from sameness due to catenation is about 1770, repeated about 4680 times; it involves quite a little more than one tenth of the entire Rig-Veda collection.

I have been engaged for some time with a statistical and critical study of this material,¹ and I wish now to show by a number of selected examples how these repetitions can be made helpful for the interpretation of the text, the proper estimate of its metrical habits, and, above all, the relative chronology of the hymns or stanzas which contain the repeated materials.

1. The meaning and etymology of *īśmín*.

5. 87. 5 (Evayāmarut Ātreya; to the Maruts).

svanó ná vó 'mavān rejayad vṛṣā tveṣó yayis taviṣā evayāmarut,
yéna sáhanta rñjāta svárociṣa sthāraḡmāno hiraṇyāyīḥ svāyu-
dhāsa īśmīṇaḥ.

7. 56. 11 (Vasiṣṭha; to the Maruts)

svāyudhāsa īśmīṇaḥ sunīṣkā utá svayān tanvāḥ ḡm̐bhamānāḥ.

¹ Cf. JAOS. xxix, pp. 287ff.
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The hieratic word *īsmín* occurs, as far as I know, only four times, all in the RV. Yāska deals with the word in Nirukta 4. 16, to no purpose. All Western authorities derive the word from the root *īś* 'impel,' or the noun *īś* 'strength;' they translate by something like 'hasting,' 'driving,' or 'strengtheny.' Under such construction *īsmīnaḥ* in 7. 56. 11 is badly coordinated with its surroundings, because it is preceded and followed by words designating the warlike, or personal equipment of the Maruts. It can be made plain that *īsmín* also is such a word, being = **īśu-min* 'armed with arrows.' In sense the word is a perfect equivalent of *īśu-mant*. For the omission of *u* before *m* I may simply refer to Wackernagel, *Altindische Grammatik*, 1. 59, with the additional remark that the loss of *u* before *m* seems, by the terms of *īsmín*, no less organic than the loss of *u* before *v*.

In RV. 5. 22. 16 the crested Maruts are said to call upon their father Rudra, *ādḥā pitāram īsmīnaṁ vocanta cikvasaḥ*. The translation 'stormy' for *īsmīnam* suits Rudra, of course. Still more to the point is 'armed with arrows;' see *rudrāya kṣiprēsave*, 'for Rudra whose arrows are swift,' RV. 7. 46. 1; *rudrāḥ sviśūḥ*, 'Rudra whose arrows are strong,' RV. 5. 42. 11. In the Çatarudriya sections of the Yajur-Vedas we have *namas tigmeṣave*, and *namas tikṣṇeṣave*, both, of course, referring to Rudra; see my Vedic Concordance under these items. In AV. 1. 19. 3 we have *rudrāḥ çaravyāyāitān māmāmītrān vī vidhyatu*, 'may Rudra hit these my enemies with a volley of arrows;' cf. also RV. 10. 125. 6; AV. 15. 5. 5. Rudra's missile (*rudrāsyā hetīḥ*) is dreaded in every book of Vedic literature. A typical expression is (see Conc.):

pari no (no) rudrasya hetir vṛṇaktu
pari no hetī rudrasya vrjyāḥ (vrjyāt)
pari tvā (vo) rudrasya hetir vṛṇaktu
pari vo hetī rudrasya vrjyāḥ (vrjyāt).

Rudra is really the typical archer (*āstar*) of the Veda: RV. 10. 64. 8; AV. 6. 93. 1. The archer is described as *īṣumant*, of course: RV. 2. 42. 2; cf. AV. 20. 127. 6. The equation *īsmín* = *īṣumant* follows automatically.

Otherwise *īsmín* is an attribute of the Maruts. They are described as *svāyudhāsa īsmīnaḥ*, 'having strong weapons and arrows,' RV. 5. 87. 5; 7. 56. 11; as *vāçimanta īsmīnaḥ*, 'armed with axes and arrows,' RV. 1. 87. 6. But in RV. 5. 57. 2

they are *vācīmanta rṣtimānto sudhānvāna iṣumantaḥ*. 'armed with axes, spears, bows, and arrows,' and so, again, *iṣmīn* = *iṣumant*. Cf. also RV. 5. 53. 4; 8. 20. 4, 12, and the Çata-rudriya formula, *nama iṣumadbhyo dhanvāyibhyaḥ* (or. *dhanvā-vibhyaḥ*) *ca*: see Concordance. It is scarcely necessary to state that *iṣmīnaḥ* and *iṣumantaḥ* are metrical doublets, and that, of the two, *iṣmīnaḥ* is the secondary formation, as, e. g. *ojasvin*: *ojasvant*; *bhrājasvin*: *bhrājasvant*; see Conc., under *indrājasvinn*. and *sūrya bhrājiṣṭha*. Stems in *-vin* and *-min* are primarily, and in the main, *-vant* and *-mant* stems modulated over into *-in*-stems.

2. On the meaning of *kīrī*.

6. 23. 3 (Bharadvāja; to Indra)

pātā sutām indro astu sōmam prapenīr ugrō jaritāram ūtī.
kārtā vīrāya sūṣvaya u lokām dātā vāsu stuvatē kīrāye cit.

6. 44. 15 (Çaṇiṣu Bārhaspatya; to Indra)

pātā sutām indro astu sōmam hantā vṛtrām vājreṇa mandasānāḥ.
gāntā yajñāḥ parāvātaḥ cid āchā vāsur dhīmām avitā kārūdhāyāḥ.

By italicizing the two words *kīrāye* in 6. 23. 3, and *kārūdhāyāḥ* 'nourishing poets,' in 6. 44. 15, I have indicated my belief that *kīrī* means 'poet.' Pischel, *Ved. Stud.*, I, 216 ff., following Ludwig, *Der Rig-Veda*, vol. vi, p. 105, takes *kīrī* in the sense of 'miserable, poor,' contending that the word nowhere means 'poet.' Why not here in 6. 23. 3, where the antithesis between *vīrāya sūṣvaye* and *stuvatē kīrāye cit* is positively fundamental? The rich gentleman who presses the soma for the gods, and 'aye the poet who has only his song of praise to offer the gods'—that is what *stuvatē kīrāye cit* means—are contrasted most effectively (cf. 7. 97. 10). So also in 1. 31. 13 *rātūhavyaḥ*, 'he who gives the offering,' and *kīriḥ cin mántram*, 'the poet with his mantra only.' In 2. 12. 6 we have *coditā yo brahmāṇo nūdhamānasya kīrēḥ*, '(Indra) who promotes the needy Brahman poet.' The word *kīrī* has the side meaning 'poor' only in so far as the poets of the Veda are constitutionally and congenitally poor. The normal state of the Brahman poet and priest is expressed explicitly in AV. 7. 103: 'What gentleman (*kṣatriya*), desiring to improve his condition, will get us (the priests) out of this wretched plight? Who desireth to sacrifice, who to give baksheesh? Who shall gain

long life with the gods?'¹ I am sure that in this way the word *kīrī* in the sense of 'poet,' with the implication that poets, in contrast with their employers, are, as a rule, poor men, will be finally placed upon solid ground. And so *kīrī* and *kāru* and *kṛtū*, all from the *seṭ-* root *kari* (cf. *kīrtī*, 'act of praising:' I. E. type *kṛtī*), need not be separated etymologically. In R.V. 5. 4. 10, *yās tvā hṛdā kīrīṇā mānyamāno . . . jōhavimi*, means 'I, who remember thee with a heart full of praise, fervently call upon thee.' Geldner, in his *R.V. Glossary*, under *kīrī*, remarks that Sāyaṇa takes *kīrī* in the sense of 'poet.' Geldner believes in Sāyaṇa more than I do: it would have been well to have listened to him in this instance, not because Sāyaṇa knows anything special about the word, but because it is antecedently unlikely that a Hindu could err in the case of word which must suggest to him the root *kari*, 'praise.'

3. On the ethnical or geographical term *āmbara*.

1. 47. 7 (Praskaṇva Kāṇva; to the Aṇvins)
yān nāsatyā parāvāti yād vā sthō ādhi turvāṇe,
 āto rāthēna suvṛtā na ā gatam sākām sūryasya raṣmibhiḥ.

8. 8. 14 (Sadhvaṇsa Kāṇva; to the Aṇvins)
yān nāsatyā parāvāti yād vā sthō ādhy āmbare,
 ātaḥ sabāsrānirṇijā rāthēnā yātam aṇvinā.

The confrontation of the two stanzas throws some light on the word *āmbare* in 8. 8. 14. The Pet. Lex. started by giving it the meaning 'umkreis,' 'umgebung,' (with an fanciful derivation from *anu-var*). Ludwig, 66, renders the two words *ādhy āmbare* by 'oben im luftkreise.' I think that if this scholar had remembered his own rendering (25) of *ādhi turvāṇe*, in 1. 47. 7, by, 'über den Turvaṇa,' he would have rendered *ādhy āmbare* by, 'über den Ambara' (whatever that is). Grassmann, ii, 51, renders 1. 47. 7^b, 'ob ihr bei Turvaṇa verweilt;' but, in i, 406, he renders 8. 8. 14^b, 'wenn in der nähe ihr verweilt.' Again the parallelism between *ādhi turvāṇe*, and *ādhy āmbare* is obliterated.

The Nighaṇṭavas have played mischief with *āmbara*. There are two treatments of the word. In 1. 3 it figures among

¹ See Bloomfield, *The Atharva-Veda (Grundriss der Indo-Arischen Philologie)*, p. 77. For Brahmins in need see further R.V. 6. 44. 10; 8. 80. 3; and 10. 24. 3.

the sixteen words for 'midair' (*antarikṣa*). That, I presume, is at the root of the Pet. Lex.'s rendering. In 2. 16 it appears in a list of eleven words for 'near' (*antika*). Thence, perhaps, Grassmann's 'in der nähe.' Unfortunately 2. 16 contains also *turvāṣe*, in the very same locative case of 8. 8. 14. The absurdity of such glossography is really appalling. The only excuse for the appearance of the two words in this list is that they are both contrasted in the RV. stanzas above with *parāvāti*, 'at a distance.' The enticement lies in the frequent contrast between *parāvāti* and *arvāvāti*, e. g. RV. 8. 97. 4, *yāc chakrāsi parāvāti yād arvāvāti vytrahan*. I should not wish to go so far as to say that the school of interpretation which bred these glosses actually meant that both *ambaram* (*sic*) and *turvāṣe* were adverbs = *antike*, 'near.' They probably conceived them to be things or places near at hand (in contrast with *parāvāti*). Yet their statement was misleading enough to lead astray so very distinguished a scholar as Grassmann. It would pay well to work through the Nighaṇṭavas and Yāska to discover in what way they arrived at their many equally stunning results.

One gain accrues from this discussion. If *turvāṣe* is beyond doubt an ethnical or geographical designation, then *āmbare* also is the name of a people, or a land. As such it occurs in the Brhatsamhitā, and elsewhere; see Böhtlingk's Lexicon, s. v. In his *Prolegomena*, p. 263, note, Oldenberg thinks that possibly 8. 8. 14 is less original than 1. 47. 7, but this opinion may be due to the current lop-sided interpretation of *āmbare*. With *āmbare* in an ethnical sense, I see no reason for discriminating against 8. 8. 14.

4. An exceedingly wonderful horse.

1. 152. 5 (Dīrghatamas Āucathya; to Mitra and Varuṇa)
anaçvó jātó anabhīçúr árvā kánikradat patayad ūrdhvasānuḥ.
acittam bráhma jujuşur yúvānaḥ prá mitrè dháma varuṇe
grṇāutaḥ.

4. 36. 1 (Vāmadeva; to the R̥bhus)
anaçvó jātó anabhīçúr ukthyò ráthas tricakrāḥ pári vartate
rājaḥ,
mahád tát vo devyāsyā pravácanaṁ dyám ṛbhavaḥ prthivīm
yác ca pūşyatha.

In 4. 36. 1 the R̥bhus are said to have fashioned a chariot, fit to be praised in hymns, because without horse or bridle it courses with three wheels through the air. Since it is three-wheeled it seems to be the chariot of the Aṅvins (cf. 1. 120. 10). That sort of a vehicle is, the lord knows, marvelous enough, but it will pass in the light of mythic fancies and ethnological parallels elsewhere. Similarly, in 6. 66. 7 the Maruts are described, along the same line of fancy even more energetically, as crossing the air without span of deer or horses, without charioteer, and without bridle. Now in 1. 152. 5 (above) the mystery is heightened to the second power, as it were. Ludwig, 97: 'ohne ross geboren, ohne zügel der renner, wiehernd fliegt er mit aufgerichtetem rücken.' Grassmann, ii, 153: 'Geboren ohne Ross und Zügel, wiehernd fliegt auf der Renner mit erhobenem Rücken.' Geldner and Kaegi, *Siebenzig Lieder*, p. 13, more diplomatically, but less close to the text, and its parallel in 4. 36. 1: 'Sich bäumend schiesst nach oben mit Gewieher der Renner ohne Zügel, der kein Ross ist.'

Any attempt to extract a picture with clear outline out of 1. 152. 5^a will prove quite futile; the pāda is built by a secondary poetaster upon the previously existing pāda 4. 36. 1^a; he 'goes' his model 'one better,' and loses himself in mock-mythic fatuity—one of the standard failings of his class. What he had in mind may perhaps, after all, be expressed by 'the steed which is yet no horse and goes without bridle.' Or, 'the steed which is born from no horse,' &c. In any case the present parallel offers a clear case of relative chronology: 1. 152. 5 is later than 4. 36. 1.

5. The Bull-Cow.

4. 3. 10 (Vāmadeva; to Agni)
 ṛtēna hi śmā vṛṣabhāc cid aktāḥ pumān agniḥ pāyasā prṣṭhyēna,
 āspandamāno acarad vayodhā vṛṣā cūkrām duduhe pṛṇir ūdhah.

'In accord with the divine law, indeed, Agni, the bull, the man, has been annointed with the heavenly fluid. Unwavering he moved, strength-bestowing; he the bull, the Pṛṇi-cow, has milked his bright udder.' The paradox in pāda *d* between *vṛṣā*, 'bull,' and *pṛṇi*, 'heavenly cow' (especially, 'mother of the Maruts') has led the interpreters in various directions. Ludwig, 330, changes *pṛṇir* to *pṛṇer*, 'es melkte der stier der Pṛṇi helles euter;' in his commentary he retains *pṛṇir* but takes

vṛṣā with the preceding *pāda*, so as to avoid the paradox: 'nicht zuckend ohne anstrengung gieng der lebenskraft schaffende stier, ihr helles euter liess Pṛṇi fliesen.' Grassmann's rendering, i, 112, 'der Same strömt dem Stier, der Kuh das Euter,' is negligible, in the light of the parallel *pāda*, 6, 66, 1^a. Oldenberg, *SBE.* xlv, 326, does not quite do justice to *pṛṇir* in his rendering, 'the speckled bull has poured out his bright udder.' I think that Bergaigne, ii, 397, 398, is unquestionably right in assuming a paradoxical 'taureau-vache,' here, and in other passages mentioned by him. The daring metaphor is, that Agni shoots out his flames from his bright udder; he, a bull, is thereby also a *pṛṇi*, the heavenly, yielding cow, *par excellence*. Although the conception is very effective, it is, nevertheless, modelled after a simpler one of which we have the exact record:

6. 66. 1 (Bharadvāja; to the Maruts)

vāpur nū tāt cikitūṣe cid astu samānām nāma dhenū pātya-
mānam,
mārteṣv anyād dohāse pīpāya sakṛc chukrām duduhe pṛṇir
ṛdhaḥ.

Ludwig, 696, translates the stanza very cleverly, as follows: 'Ein wunder muss sein selbst dem weisen, was den gemeinsamen namen Kuh hat; das eine schwoll dass die menschen es melkten, einmal nur hat Pṛṇi ihr helles euter gemolken.' In 6. 48. 22 we have a similar statement. *pṛṇyā dugdhām sakṛt pāyaḥ*. Max Müller, in a note to his similar translation, *SBE.* xxxii. 370, explains that *dhenū*, a cloud, yields rain but once, or that Pṛṇi gave birth but once to the Maruts. The first alternative seems likely to me, as it does to Bergaigne, i. 321; ii. 399. The pertinence and originality of the repeated *pāda* in 6. 66. 1 is established beyond peradventure by the parallel in 6. 48. 22; equally certain is, that the metaphor which turns Agni in 4. 3. 10 into a 'bull Pṛṇi who milked his bright udder' is the work of a later poet who is unquestionably bending to his purpose the very wording of a familiar mythological conceit, current in his time as kind of mystery (*brahmodya*) about Pṛṇi. Cf. v. Bradke, *Festgruss an Roth*, p. 123; Oldenberg, *Rig-Veda Noten*, p. 268.

6. 'In the maw of the biter' (*úpa srákveṣu bāpsataḥ*).

7. 55. 2 (Vasiṣṭha; Prāvāpīnyaḥ [sc. real])
 yád arjuna sārameya datāḥ piṣāṅga yāchase,
 vīva bhrājanta rṣṭāya *úpa srákveṣu bāpsato ní śú svapa*.

'When, o white-brown Sārameya (dog), thou doest show thy teeth, then, as it were, spears shines in the maw of thee biting—sleep thou deeply.' Cf. Pischel, *Vel. Stud.* ii. 55ff; Foy, *KZ.* xxxiv. 257; Oldenberg, *ZDMG.* lxi. 823. Pischel, p. 58, renders *bāpsataḥ* here, erroneously and unnecessarily, by 'knurrend,' though admitting 'verzehrend,' 'fressend,' as the meaning of the word on p. 63. In this way he places out of accord the repeated pāda, *úpa srákveṣu bāpsataḥ*, in another stanza:

8. 72. 15 (Haryata Prāgātha; to Agni, or Haviṣām Stutiḥ)
úpa srákveṣu bāpsataḥ kṛṇvaté dharuṇaṁ divi,
indre agnā námaḥ svāḥ.

Pischel, l.c., p. 58, thinks this repetition an instructive example, calculated to show that the same words do not have the same sense everywhere. The same words, taken singly, of course not, tho even in this matter we may remember Bergaigne's warning against splitting up too much. But the same pāda, that is a more ticklish matter. My own, more extensive investigations of repeated pādas show that they have as a rule the same value, wherever they occur. He translates, p. 59: 'Wenn ihn (die Presssteine) im Maule zermalmt haben, machen sie ihn (that is, Soma) zum Tragepfeiler am Himmel. Verehrung sei Indra, Agni, Svar.' In the line of Pischel's own thought we could but translate: 'They that eat him in their maws make (or build) support in heaven.' But I see no reason to take it for granted that *bāpsataḥ* are the *ádrayaḥ*, or press-stones, because the verb in question is used of things other than the press-stones as well; see Pischel, *ibid.*, p. 63; Aufrecht, *KZ.* xxxiv. 459. The subject of *kṛṇvaté* seems to be the same as that of the preceding stanza, 8. 72. 14, namely the substances added to soma (milk, &c.). of which it is there said that they know their own belongings as a calf its mother; that is, they know that they belong to soma: *té jānata svām okyām sūm vatsāso ná mātṛbhiḥ*. The hymn 8. 72, as a whole, is obscure and mystically ritualistic, but it will be safe to translate 8. 72. 15 verbally: 'in the maw of consuming (soma) they (the ingredients of the soma mixture) create support in

heaven. To Indra, Agni obeisance, light.' Now in 9. 73. 1. it seems to me, we have the true parallel to the pāda, *ūpa srākveṣu bāpsataḥ* in 8. 72. 15. The first hemistich of the former stanzas reads: *srākve drapsāsya dhāmataḥ sām asvarann rtāsya yonā sām aranta nābhayaḥ*. Grassmann, ii, 242, renders aptly, though not literally: 'Im Schlund des Tropfens, welcher gährt, in Opfers Schoos vereinten strömend jetzt verwandte Tränke sich.' One thing is certain, it is a question in this stanza, as well as in 8. 72. 14, 15, of soma and his admixtures (cf. Grassmann's introductions to the two hymns); *bāpsataḥ* as well as *dhāmataḥ* is genitive singular, applied to 'soma as consuming, or amalgamating with himself his admixtures. In this way *ūpa srākveṣu bāpsataḥ* means 'in the maw of him that bites,' in both of its occurrences (cf. e. g., *bhāsmanā datā*, 10. 115. 2). I can discover no criterion which points out the relative chronology of the two stanzas, but the metaphoric character of the repeated pāda in 8. 72. 15 rather points to its secondary origin.

7. An assumed parenthesis verified by a repeated pāda.

1. 10. 7 (Madhuchandas Vāiṣvāmītra; to Indra)
 suvivṛtam sunirājam *indra tvādātam id yāgaḥ*,
 gāvām āpa vrajām vṛdhi kṛṇṣvā rādho adriyaḥ.

3. 40. 6 (Viṣvāmītra; to Indra)
 girvaṇaḥ pālī naḥ sutām mādhor dhārābhir ajoyase,
indra tvādātam id yāgaḥ.

Ludwig, 449, renders 1. 10. 7: 'ganz offen da liegend, leicht zu gewinnen, Indra, ist der ruhm, der von dir verliehen wird. Öffne den stall der rinder, schaffe gewährung, steinbewerter.' Grassmann, ii, 9: 'Leicht zu eröffnen, zu empfahn ist der Schatz, den, Indra, du verleihst; so öffne uns die der Rinder Stall, und schenk uns Gut, o Schleuderer.' Neither rendering of the first hemistich is good; Grassmann's *yāgaḥ* as 'Schatz' is especially indefensible. As a matter of fact the second pāda is a parenthesis; it feels like a foreign body. The stanza makes perfect sense without it: 'Open the stable of the cows that is easy (for thee) to open, easy to drive out from; show thy kindness, O god of the press-stone.¹ The parenthetic

¹ For *adriyaḥ* see the author, *ZDMG.* xlviii. 572.

pāda *b*, *indra tvādātam id yācah*, appears in proper connection at 3. 40. 6^c.

It is well to compare the translations of 3. 40. 6 with those of 1. 10. 7^b; they reveal extreme inconsistency in the renderings of the repeated pāda. Ludwig, 505: 'lieder liebender, trink unsern saft, in madhuströmen badest du; Indra, von dir wird diese herrlichkeit geerntet.' Grassmann, i. 86: 'Den Liedern hold geniesst den Trank, du wirst mit süßem Strom gesalht. Von dir ist, Indra, Glück geschenkt.' The repeated pāda fits here perfectly: Indra bestows prosperity or glory in return for abundant soma. It requires no too great boldness to assume that the traditional Madhuchandas Vāiṣvāmītra of 1. 10. 7 borrowed the pāda in question from the hymn of the traditional Viṣvāmītra of 3. 40. 6. Note that 1. 10. 7 shares another of its pādas, namely, *kṛṇusvā rādho adrivaḥ* with 8. 64. 1. In this way, that is by regarding 1. 10. 7^b as an awkward interpolation, we are saved the necessity of regarding 1. 10. 7^a as a separate sentence, and supplying a verb from the preceding stanza, as suggests Oldenberg, *Rig-Veda Noten*, p. 13. It is interesting to add that the extraneous character of 1. 10. 7^b was clear to Aufrecht's mind in the year 1888 (see *Festgruss an Otto von Böhtlingk*, p. 2), tho he did not know that the pāda was borrowed, or, at least, repeated elsewhere.

8. A new case of parenthesis.

1. 124. 3 (Kakṣīvat Dāirghatamasa; to Uṣas)
eṣā divo duhitā prāty adarṇi jyōtir vāsānā samanā purāstāt.
ṛtāsya pānthām ānv eti sādhu prajānativa nā dīḥ mināti.

5. 80. 4 (Satyaçravas Ātreya; to Uṣas)
eṣā vyēni bhavati dvibārḥā āviṣkṛvānā tanvām purāstāt,
ṛtāsya pānthām ānv eti sādhu prajānativa nā dīḥ mināti.

We have not the means of deciding which of these two stanzas is entitled to priority. But one point is certain: the two pādas of the repeated hemistich are so well knit together as to preclude their having been composed in the first place separately: 'straight does she (the daughter of Heaven, Uṣas) go along the path of *ṛtā* (divine law); as one who knows (the way) she does not miss the directions.' Now we find the pāda, *ṛtāsya pānthām ānv emi sādhuṣā* (*sādhuṣā*, neat

jagatī variant for the triṣṭubh cadence in *sādhū*), in another place:

10. 66. 13 (Vasukarṇa Vāsukra; to the Viçve Devāḥ)
dāivyā hōtārā prathamā purōhita ṛtāsya pānthām ānv emi
sādhuyā,
kṣétrasya pātiṃ prátiveçam imahe víçvān devāñ amṛtān āpra-
yuchataḥ.

Ludwig, 228, tries the *tour de force* of translating the first two pādas in one construction: 'den beiden göttlichen hotar als den ersten purohita geh ich glücklich nach den weg der ordnung.' Grassmann, ii. 353, not unsimilarly, 'Den götterpriestern, als dem ersten Priesterpaar folg graden Wegs ich auf dem Pfad des rechten Werkes.' And again Bergaigne, iii. 241: 'Je suis exactement les deux sacrificateurs divins, les premiers *purohita* sur le chemin du *ṛta*.' I do not regard these translations as correct, first, because they impose a different meaning upon *ānv emi* in 10. 66. 13 from that of *ānv eti* in 1. 124. 3; 5. 80. 4; secondly, because *ānv + i* does not govern two accusatives; cf. in addition 3. 12. 7 (where there are two verbs, *upa prā yanti*, and *ānu yanti*); 7. 44. 5; and 8. 12. 3. The facts are these: in 10. 66. 13 *ṛtāsya pānthām ānv emi sādhuyā* is a parenthesis suggested by the ritualistic *dāivyā hōtārā prathamā purōhitā*, who are stock figures in the seventh or eighth stanzas of the *āpri*-hymns: see 2. 3. 7; 3. 4. 7 = 3. 7. 8; 10. 110. 7, and cf. of the more recent literature on the *āpri-sūktas*, Bergaigne, *Recherches sur l'Histoire de la Liturgie Védique*, Journal Asiatique, 1889, pp. 13ff.; Oldenberg, *SBE.* xlv. p. 9. The stanza 10. 66. 13, therefore, is to be rendered: 'We implore the two divine Hotar, the first Purohitas—straight do I go along by the path of the divine law (here the ritualistic *ṛtā*, or sacrificial law)—we implore the Lord of the Field, our neighbour, and all the immortal gods, the unfailing.' There can be no doubt that the repeated pāda means about the same thing in all three places, and that the author of 10. 66. 13 has borrowed it with loose and slightly secondary adaptation to the theme which he had in hand.

9. Antithesis as a text-critical aid.

1. 92. 11, and 1. 92. 12 (Gotama Rāhūgaṇa; to Uṣas)
vyūrnvatī divó ántāñ abodhy āpa svásāraṃ sanutár yuyoti,
praminatī manuṣyā yugāni yóṣā jārāsyā cākṣasā ví bhāti.

paçún ná citrá subhágā prathānā sindhur ná kṣóda urviyá vy
 açvāit,

áminatī dáivyāni vratāni sūryasya ceti raçmibhir dṛçānā.

The two repeated pādas occur together in one stanza:

1. 124. 2 (Kakṣīvat Dāirghatamasa; to Uṣas)

*áminatī dáivyāni vratāni praminatī mauṣyā yugāni,
 īyúṣiṇām upamā çáçvatīnām āyatīnām prathamóṣā vy ādyāut.*

There can be no question but what 1. 124. 2 is the source of the repeated pādas in 1. 92. 11 and 12. The antithesis between *áminatī* and *praminatī*, and *īyúṣiṇām* and *āyatīnām* cannot but be intentional and primary. Note also the parallelism between *áminatī* and *āyatīnām*; and *praminatī* and *īyúṣiṇām*. On the other hand, we ought to allow full weight to the really senseless *non sequitur* of the second hemistich in 1. 92. 11: 'reducing the ages of men, the woman shines by the light of her paramour (the sun).' For the meaning of *yugā* 'age,' i. e. 'period of time,' see Bāl Gangādhara Tilak, *The Arctic Home in the Vedas*, p. 176. The second hemistich of 1. 124. 2 recurs, with the variants *vibhātīnām* for *āyatīnām*, and *açvāit* for *adyāut* (cf. *açvāit* in 1. 92. 11), in 1. 113. 15. The probability is that this stanza also is secondary, because *vibhātīnām* disturbs the antithesis between *īyúṣiṇām* and *āyatīnām*, and because the connection between its two hemistichs is sufficiently loose:

*āvāhanti pōṣyā váryāni citráni ketūni kṛṇute cékitānā,
 īyúṣiṇām upamā çáçvatīnāni vibhātīnāni prathamóṣā vy açvāit.*

Stanza 1. 124. 2 is the high-water mark of Vedic composition. The two antitheses *áminatī* . . . *praminatī* and *īyúṣiṇām* . . . *āyatīnām* mark as later imitations all repetitions that disturb this balance. The relation of the two pairs of antithetical words may be expressed in the proportion: *áminatī* : *āyatīnām* = *praminatī* : *īyúṣiṇām*. Or by the diagram:

<i>áminatī</i>	<i>praminatī</i>
<i>īyúṣiṇām</i>	<i>āyatīnām</i>

10. A solecism.

1. 8. 5 (Madhuchandas Vāicvāmitra; to Indra)
mahān indraḥ parāc ca nū mahitvām astu vajriṇe,
dyāur nā prathinā çāvaḥ.

'Great is Indra, aye more than great: may greatness be to him that wields the club, strength extensive as the sky.' Pāda c is repeated in the following Vālaikhilya stanza:

8. 56 (Vāl. 8). 1 (Pṛṣadhra Kāṇva; Dānastuti of Praskanva)
prāti te dasyave vṛka rādho adarçy āhrayam,
dyāur nā prathinā çāvaḥ.

Ludwig, 1018: 'O Dasyave vṛka! deine unerschöpfliche gabe zeigte sich, als fülle wie der himel an breite.' Grassmann, ii, 503: 'Es hat sich gezeigt, O Dasyavevṛka, dein reichliches geschenk, wie der Himmel breitet sich dein Ruhm aus.' Since *çāvaḥ* means neither 'fülle,' nor 'ruhm,' the secondary application of the Vālaikhilya pāda is clear. The use of the pāda is a mere solecism in this connection. The words *rādho āhrayam* are best rendered by 'gift that is not shabby.'

11. From real to mystic.

1. 22. 21 (Medhātithi Kāṇva; to Viṣṇu)
tād viprāso vipanyāvo jāgrvānsaḥ sām indhute,
viṣṇor yāt paramām padām.

3. 10. 9 (Viçvāmitra Gāthina; to Agni)
tām tvā viprā vipanyāvo jāgrvānsaḥ sām indhote,
havyavāham āmartyam sahovēdham.

The repeated first hemistich appears in primary application in 3. 10. 9: 'The bards, skilled in song, on waking, have kindled thee (Agni, fire).' The application of the same idea in 1. 22. 21 is mystic: the bards kindle the highest stepping place of Viṣṇu, the sun-fire at its zenith, the abode of the blessed. Cf. 1. 22. 20; 1. 154. 5; 10. 1. 3 &c., and Hillebrandt, *Vedische Mythologie*, i. 354. We may admire the ingenuity which enables the epigonal poet to express the thought that the inspired song of the poets kindles the light of the heavens, but the fact remains that he has adapted an ordinary sense motif effectively, yet mechanically, to his high idea. Without the former (3. 10. 9) we should have hardly had the latter. Cf. also Oldenberg, *Rig-Veda Noten*, p. 17.

12. How an Indra line is turned into a Rudra line.

3. 22. 7 (Viçvāmitra; to Indra)

yājāma in nāmasā vṛddhām indram *brhāntam ṛṣvām ajāram*
yūvānam,

yāsya priyé mamātur yajñīyasya ná ródasī mahimānam mamāte.

6. 19. 2 (Bharadvāja; to Indra)

indram evā dhiṣāṇā sātāye dhād *brhāntam ṛṣvām ajāram*
yūvānam,

āśālḥena çāvasā çūçuvāṅsam sadyāç cid yó vāvṛdhé āsāmi.

6. 49. 10 (R̥jiçyan Bhāradvāja; to Rudra)

bhūvanasya pitāram gīrbhīr ābhī rudrām divā vardhāyā rudrām
aktāu,

brhāntam ṛṣvām ajāram suṣumnām řdhag ghuvema kavineṣi-
tāsaḥ.

In the two Indra stanzas the pāda, *brhāntam ṛṣvām ajāram yūvānam*, agreeing with *indram*, is altogether fit. Certainly *ajāram yūvānam*, 'youth that does not age,' with its obviously intentional implied antithesis, is a better sequence of words than *ajāram suṣumnām*, 'ageless and kind,' in the Rudra stanza. In adapting the pāda to Rudra (Çiva) the need of mentioning his precarious kindness was sufficiently urgent to procure the change. Cf. his epithets *mādhvās* and *çivā*; his *hāsto mṛlayākuḥ* in 2. 33. 7; and more directly such a passage as 2. 33. 1, *ā te pītar marutām sumnām etu*. See also 1. 43. 4 and 2. 33. 6.—For 3. 32. 7^{c d} see Oldenberg, *Rig-Veda Noten*, p. 244; for *dhiṣāṇā* in 6. 19. 2, Geldner, *Ved. Stud.* ii, 83.

13. How a Rbhu line is addressed to the Press-stones.

3. 60. 3 (Viçvāmitra; to the R̥bhū)

indrasya sakhyām řbhávaḥ sām ānaçur mánor nāpāta apāso
dadhanvire,

sāudhanvanāso amṛtatvām érire *viṣṭvī çāmūbhiḥ sukṛtaḥ su-*
kṛtyāyā.

'The R̥bhū have obtained the friendship of Indra; they, the children of Manu, the workers, have bestirred themselves. The Sāudhanvanas, laboring on (pious) tasks, have obtained immortality, they the pious workers, through their pious work.' Cf. Ludwig, 164; Grassmann, i. 103; Bergaigne, i. 69, note; ii. 403, 409, 412, 418; Ryder, *Die R̥bhū im R̥gveda*, pp. 21,

22, 25. The fourth pāda is of the very essence of the R̥bhu myth (see especially 4. 33. 4; 4. 35. 2, 7, 8); there can be no question as to its primary character. This pāda, with a single, obviously ritualistic variant, appears again, to wit:

10. 94. 2 (Arbuda Kādraveya Sarpa; to the Press-Stones)
 eté vadanti çatāvat sabāsravad abliḥ krandanti hāritebhir
 āsābhiḥ,
 viṣṭvī grāvāṇaḥ sukṛtaḥ sukṛtyāyā hōtuḥ cit pūrve havirādyam
 āçata.

‘They speak a hundredfold, a thousandfold, shout to us with their yellow mouth; the press-stones, laboring, they the pious workers, through their pious work, have come to the eating of the *havis* before even the Hotar.’ Exact technical proof that the repeated pāda is here modulated secondarily cannot be rendered, but I am, nevertheless, certain that of the two phrases *viṣṭvī çāmībhiḥ* in 3. 60. 3, and *viṣṭvī grāvāṇaḥ* in 10. 94. 2, the former is the mother; cf. *vivēṣa* . . . *çāmībhiḥ* in 5. 77. 4, and the interesting epithets of the R̥bhus in their *nivīd*, ÇÇ. 8. 20, *viṣṭvī svapasah*, and *çamyā çamīṣṭhāḥ*. The expression *sukṛtaḥ sukṛtyāyā* also belongs primarily to divine beings; secondarily to a ritualistic instrument like the press-stones.

14. Principal and relative clause as a criterion of relative chronology.

1. 39. 6 (Kaṇva Ghāura; to the Maruts)
 ūpo rātheṣu pṛṣatir ayugdhvam prāṣṭir vahati rōhitaḥ,
 ā vo yāmāya pṛthivī cid açrod ābībhayanta mānuṣāḥ.

‘And ye have hitched the spotted mares to your chariot; a red stallion acts as leader. Even the earth hath listened at your approach, and men were frightened.’ Cf. Ludwig, 675; Grassmann, ii. 43; Max Müller, *SBE.* xxxii. 97. The word *pṛṣatir* which the translators render by ‘antelopes’ means in fact ‘spotted mares,’ because the Maruts have the epithet *pṛṣadaçva*. See Bergaigne ii. 378, and, very explicitly, Nāighaṇṭuka 1. 15; Bṛhaddevatā 4. 144 (catalog of the spans of the gods) where we have the express statement, *pṛṣatyō ’çvās tu marutām*. The word *prāṣṭi* (*pra* + *sti*, like *abhīṣṭi*, *ūpasti*, and *pārīṣṭi*) means literally ‘being in front,’ ‘leading horse.’ It is the analog of *purogavā* and *πρόσβυς*, ‘leading steer.’ Both refer

to what is known as a 'spike-team,' or, 'unicorn.' To a team of two animals a third is hitched in front for better guidance. See the author in *American Journal of Philology*, xxix, 78ff.

The pāda, *prāstīr vāhati rōhitah*, is repeated in a closely related stanza to the Maruts:

8. 7. 28 (Punarvatsa Kāṇva; to the Maruts)

yād eṣāṁ pṛṣati rāthe *prāstīr vāhati rōhitah*,
yānti çubhrā riṣāṇṇ apāḥ.

'When the red stallion guides as a leading horse their speckled mares at the chariot, then the bright Maruts approach and let the waters flow.' Subtly, and yet in a peculiarly certain way, this stanza is secondary, directly patterned after 1. 39. 6. The entire characteristic and imaginative description of the span of the Maruts in 8. 7. 28 is crowded incidentally, as it were, into a subordinate clause (note orthotone *vāhati* in 8. 7. 28; enclitic *vahati* in 1. 39. 6), whereas in 1. 39. 6 the description is the set theme of the first hemistich. I cannot doubt that this important bit of mythography was first stated in the explicit terms of 1. 39. 6, before it could be referred to incidentally, yet in the very same words, in 8. 7. 28.

15. Attraction to the Vocative.

1. 30. 21 (Çunaḥçepa Ājigarti, alias Devarāta; to Uṣas)

vayām hī te āmanmahy āntād ā parākāt,
āçve nā citre aruṣi.

4. 52. 2 (Vāmadeva; to Uṣas)

açvéva citrāruṣi mātā gāvām rtāvarī,
sākhābhūd açvīnor uṣāḥ.

Bergaigne, *La Syntaxe des Comparaisons Védiques (Mélanges Renier, p. 75 ff.; especially, p. 77, note 1)*, and Pischel, *Ved. Stud.* i. 91 ff. have treated the phenomenon of case attraction in comparisons; they show that the primary word in a comparison attracts to its own case-form the secondary, or simile word. On page 92 Pischel remarks that he has found scarcely more than one case of attraction to the vocative, namely, *āçve nā citre aruṣi*. But he has failed to note the parallel, which puts the stamp of imitativeness upon 1. 30. 21. I do not wish to say that the vocative attraction in 1. 30. 21 violates any habit, notwithstanding its rareness, especially as Delbrück, *Altindische Syntax* cites, correctly, one more case from the

first book, 1. 57. 3. But of the two repeated pādas, above, one must be the model, and that is 4. 52. 2, making it likely, after all, that the construction in 1. 30. 21 is for the nonce. We must not forget the cases in which the secondary or simile word is in the nominative, while the primary word is in the vocative, e.g., 1. 16. 5; 1. 36. 13; 7. 13. 3 &c. More precisely, therefore, *ácve ná* in 1. 30. 21, imitates *açvéra* in 4. 52. 2. It is significant that all previous discussions of this vocative construction were without reference to the parallel nominative construction, tho the interdependence of the two is not to be doubted, especially as the final cadence of both lines is irregular (∪ ∪ ∪ ∞), and it is not to be supposed that two poets would happen upon the same metrical irregularity.

16. How a repeated pāda may teach construction.

6. 5. 1 (Bharadvāja Bārhaspatya; to Agni)

huvé vaḥ sūnúm sáhaso yúvānam *ádroghavācam matibhir*
yáviṣṭham,

yá invati dráviṇāni prácetā viçvavarāni puruvāro adhrúk.

† 'I call for you the son of might, the youth; him whose word is not false, the youngest (I call) with prayers, &c.'

6. 22. 2 (Bharadvāja; to Indra)

tám u naḥ pūrve pitāro návagvāḥ saptá víprāso abhi vājáyantaḥ,
nakṣaddābhām ítáturim parvateṣṭhām *ádroghavācam matibhiḥ*
çáviṣṭham.

The modulation of the repeated pāda is interesting: *yáviṣṭham* for Agni (see Macdonell, *Vedic Mythology*, p. 91); *çáviṣṭham* for Indra. Çavasī is Indra's mother; see the author in *ZDMG.* xlviii. 548, and cf. *çáviṣṭha* in Grassmann's *Lexicon*. The word *ádroghavācam* does not determine the prior place of the repeated pāda. Though Indra is depicted in the Brāhmaṇas as a good deal of a liar, still in the Rig-Veda this euphemistic epithet is assigned not only to him but also to Agni; see Bergaigne, iii. 181, 187. The value of the repeated pāda lies in its definite settlement of the meaning and government of *matibhiḥ*. Ludwig, 546, takes *matibhiḥ çáviṣṭham* in 6. 22. 2^d together in the sense of 'gedankenstärksteu.' This is disproved by the parallel words *matibhir yáviṣṭham* in 6. 5. 1^b. This cannot mean 'gedanken-jüngster.' Translate 6. 22. 2: 'Him our Fathers of yore . . . (have called) with their prayers, him whose word is not false, the strongest.' Cf. Grassmann, i. 253.

17. How a repeated pāda may teach a point or two in morphology.

4. 17. 3 (Vāmadeva Gāutama; to Indra)

bhinād girīm čavasā vājram iṣṇānn āviṣṭṛṇvānāḥ sahasānā ójaḥ.
vádhdīd vrtrām vājreṇa mandasānāḥ sárann ápo jávasā hatávṛṣṇīḥ.

‘He cleft the mountain, hurling his club with might, manifesting, exerting his strength. He hath slain Vṛtra with his club, rejoicing; the waters flowed in haste as soon as their bull (master) had been slain.’ The third pāda is repeated with a change from the third person verb *vádhdīd*, to the first person verb *vádhīm* in an imitative stanza:

10. 28. 7 (Vasukrapatni; to Indra)

evā hí mām tavásam jajñur ugrām kárman-karman vṛṣaṇam
 indra devāḥ,

vádhīm vrtrām vājreṇa mandasānō ’pa vrajám mahinā dācūṣe vam.

This stanza is, of course, put into the mouth of Indra. Ludwig, 970, in his note, suggests convincingly *índradevāḥ* for *indra devāḥ*; Grassmann, ii. 515, also scents the difficulty at that spot. Translate: ‘Thus they whose god is Indra (that is, the pious) knew me (Indra) to be a mighty and strong bull in every task: I have slain Vṛtra with my club, rejoicing, with might I have opened the stable for the pious.’ There can be no doubt that pāda c with its precarious analogical *vádhīm* (also 1. 165. 8) is a direct copy of 4. 17. 3c. This is shown further by the nonce-formation *vam* in pāda d which is again analogical. Grassmann naively explains it in his Lexicon, column 1321, as ‘aus *varam*,’ but it is a product of proportional analogy which helps to fill in a smooth paradigm: *vam*, *vah*, *vah*. Both *vádhīm* and *vam* reflect the difficulty of stating secondarily the deeds of Indra in the first person, because they were originally conceived in the third person. We must note that *vah*, like *vam*, always stands at the end of a pāda. The grammatical forms mentioned are peculiarly sound criteria for determining the relative chronology of the two stanzas.

18. A truncated line, unchanged in meaning.

1. 80. 10 (Gotama Rābhūgaṇa; to Indra)

indro vrtrāsya táviṣṇīm nír aban sáhasā sáhah,
 mahát tād asya páuṇsyam *vrtrām jaghanvān asṛjad* árcann ánu
 svarājyam.

This case is remarkable, because it is both definite and simple. The fourth pāda fails to end in an iambic dipody, and its verb has no object. Ludwig, 460, translates diplomatically ‘als er den Vṛtra getötet liess er fließen;’ Grassmann, ii. 80, more freely, ‘schlug Vṛtra und ergoss die Fluth.’ But the Rīg-Veda tells in unmistakable language that the pāda is the truncated torso of another pāda, regular in its final cadence and the preceding anapaest, and duly furnished with that object which every reader of this Veda would supply anyhow, namely *sīudhūn*:

4. 18. 7 (Saṃvāda Indrādītivāmadevānām)

kīm u śvid asmāi nivīdo bhanantēndrasyāvadyām didhiṣanta
 āpaḥ,
 māmāitān putrō mahatā vadhēna *vrtrām jaghanvān asṛjad vī*
sīndhun.

4. 19. 8 (Vāmadeva; to Indra)

pūrvīr uśasaḥ çarādaç ca gūrtā vṛtrām jaghanvān asṛjad vī
sīndhūn,

pāriṣṭhitā atṛṇad badbadbānāḥ sirā indraḥ srāvitave pṛthivyā.

From these pādas a later poet over-familiarly has extracted the short form to suit his metre. Cf. also Oldenberg, *Rig-Veda Noten*, p. 83, to RV. 1. 82. 2.

19. A line soldered together from two, and vastly changed in meaning.

1. 142. 3 (Dīrghatamas Āucathya; Āprī-stanza to Narāçaṇsa)

śūciḥ pāvako ādbhuto mādhvā yajñān mimikṣati,
nārācaṁsaḥ trir ā divo devō devēṣu yajñiyah.

8. 13. 19 (Nārada Kāṇva; to Indra)

stotā yāt te ānuvrata ukthāny ṛtudhā dadhē,
 cūciḥ pāvakā ucyate sō ādbhutaḥ.

9. 24. 6 (Viçvamanas Vāiṣṭva; to Pavamāna Soma)

pāvasva vṛtrahantamokthéblir anumādyah,
śūciḥ pāvako ādbhutah.

9. 24. 7 (The same)

çúciḥ pāvaká ucyate sômaḥ sutásya mádhvaḥ,
devāvīr aghaçaṇsahá.

Stanza 8. 13. 19 offers a remarkably convincing instance of secondary workmanship, both from the point of view of form and contents. As regards the form, 8. 13. 19^c is evidently

pieced together; it consists in fact of two pādas. *só ádbhutaḥ* is the usual and secondary tetrasyllabic refrain pāda which marks the artificial workmanship of 8. 13 throughout. The two parts of 8. 13. 19^c are derived respectively from 9. 24. 7 and 9. 24. 6. As regards the meaning, the entire group of repeated pādas shows that the expression, *śúcīḥ pāvakā ucyate só adbhutaḥ*, can be applied to a devoted poet (*stotā ānuvrataḥ*, in pāda 8. 13. 19^a) only in a secondary, hyperholic sense. The poet is said to be (*ucyate*) the possessor of the divine attributes, *śúcīḥ pāvako ádbhutaḥ*; in reality he is no such a thing. If we press the point the poet who 'devotedly sings songs of praise that accompany the oblations of Soma assumes the attributes of Soma himself (9. 24. 6, 7). Aufrecht, in the *Preface to his second edition of the Rig-Veda*, p. xxxv, writes anent 8. 13. 19^c: 'Wer? der stotr oder Indra? In dem Kopfe der Uebersetzer steigt keine Ahnung von einer Schwierigkeit auf. Die Attribute passen nur auf Agni oder Soma.' Sāyaṇa, indeed, whom some scholars still would fain regard as an authority, imposes the pāda upon Indra. But the text is clearly otherwise, and its oddity is explained by its obvious secondary origin.

20. A scooped out pāda.

1. 144. 7 (Dīrghatamas Ācuthya; to Agni)

ágne juṣasva prāti harya tād váco *mándra svádhāva řtajāta*
súkrato,
 yó viçvātaḥ řpratráññ ási darçató raṇvāḥ sám-drṣṭāu pitumāñ
 iva kṣāyaḥ.

'O Agni, enjoy and delight in this song, O lovely, blissful, *řta*-begotten, highly intelligent (god), who art turned toward us on all sides, conspicuous, lovely to behold like a dwelling rich in food.' The second pāda has a curious parallel:

8. 74. 7 (Gopavana Ātreya; to Agni)

iyám te návyasī matir ágne adhāyy asmád á,
mándra sújāta súkrato 'mūra dāsmātithe.

'This quite new song was furnished thee by us, O Agni, lovely, well-born, highly intelligent, wise, wonderful guest.' The pāda *mándra sújāta súkrato* = *mándra sv[ádhāva řta]jāta súkrato*, and it seems to me likely that the longer pāda is the original; note the anapaest after its caesura. The shorter

pāda is the result of a sort of scooping out of the longer in the middle. Cf. the relation of *āriṣṭaḥ sārva edhate*, 1. 41. 2; 8. 27. 16, to *āriṣṭaḥ sá mārto víçra edhate*, in 10. 63. 13. Their relation may be almost expressed in the formula *āriṣṭaḥ sá [mārto víç]va edhate*. Here, however, the shorter pāda is the original, from which the metrically imperfect longer pāda is derived by additions which do not add to the sense.

21. How one line begets two others.

1. 1. 8 (Madhuchandas Vāiçvāmītra; to Agni)

rājantam adhvarāṇām gopām rtāsyā dīdivim,
vārdhamānam svē dāme.

1. 45. 4 (Praskaṇva Kāṇva; to Agni)

māhikerava ūtāye priyāmedhā ahūṣata,
rājantam adhvarāṇām agnīm çukrēṇa çociṣā.

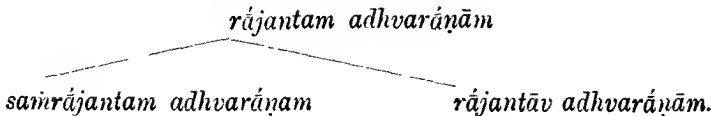
8. 8. 18 (Sadhvaṇsa Kāṇva; to the Aṣvins)

ā vām víçvābhīr ūtibhīḥ priyāmedhā ahūṣata,
rājantāv adhvarāṇām āçviuā yāmahūtiṣu.

1. 27. 1 (Çunaḥçepa Ājigarti; to Agni)

āçvaṇā ná tvā vāravantaṛu vaudādhyā agnīm uāmobhīḥ,
saṁrājantam adhvarāṇām.

The original form of the repeated pāda is doubtless *rājantam adhvarāṇām*, an Agni motif; cf. such expressions as, *pātir hy ādhvarāṇām agne*, in 1. 44. 9; or, (*agnīm*) *netāram adhvarāṇām*, in 10. 46. 4. Oldenberg, *Prolegomena*, p. 262, rightly regards the group of hymns ascribed to Praskaṇva (1. 44—50) as related to and prior to the Vatsa group (8. 6—11). The pāda, *rājantāv adhvarāṇām*, as applied to the Aṣvins in 8. 8. 18, is obviously secondary in sense; it is equally clear that the trickily trochaic pāda, *saṁrājantam adhvarāṇām* in 1. 27. 1 is secondary both in form and sense. The chronological relation of the pādas may be expressed as follows:



The RGH Law in Philippine Languages.—By CARLOS EVERETT CONANT, Professor in the University of Chattanooga.

THE attention of investigators in the field of Indonesian phonology was early attracted to the remarkable correspondence of *r, g, h,* and *y* seen in Toba and Malay *urat*: Tagalog *ugát*: Dayak *uhát*: Lampong *oya* 'vein, nerve, sinew'.

The first formal statement of this varied representation of an originally single phonic element was made by the Dutch scholar H. N. van der Tuuk in what is known as the first van der Tuuk law, the phenomena of which have been further examined and classified by others, notably Brandes, Kern, Adriani, and Brandstetter.

According to this law the IN¹ parent speech possessed a certain consonantal sound which, being lost in some languages,

¹ Abbreviations used in this paper:

Ach.	Achinese	Inb.	Inibaloi	NJav.	New Javanese
Bgb.	Bagobo	Iran.	Iranun	OFavor.	Old Favor-
Bis.*	Bisaya	Jav.	Javanese		[lang
Bkl.	Bikol	Klm.	Kalamian	OJav.	Old Javanese
Bon.	Bontok	Knk.	Kankanai	Pamp.	Pampanga
Btn.	Batan	Kuy.	Kuyunon	Pang.	Pangasinan
Bug.	Bugis	Lamp.	Lampong	Phil.	Philippine
Chro.	Chamorro	Mad.	Madurese	Sang.	Sangir
Day.	Dayak	Mak.	Makassar	S.-Bis.*	Samar-Leyte
Duz.	Duzon	Mal.	Malay		[Bisaya
Favor.	Favorlang	Mentw.	Mentawai	Sbl.	Sambal
Form.	Formosan	Mgd.	Magindanan	SForm.	Singkan For-
Ibg.	Ibanag	Mkb.	Minankabau		[mosan
Ilk.	Iloko	Mlg.	Malagasi	Sumb.	Sumbanese
IN	Indonesian	Mongd.	Mongondou	Sund.	Sundanese
	Tag.	Tagalog	Tir.	Tirurai	

* Bis. includes the three great Bisaya dialects, Cebuan, Panayan, and that of Samar and Leyte, except on pp. 83, 84, and 85, where it includes only the first two named, the last being indicated by S.-Bis.

like Old Javanese, became in others variously *r*, as in Toba, Karo, Čam, and Malay; *g*, as in Tagalog, Bisaya, Formosan, Ponosakan, and Chamorro; *h*, as in Dayak, Sangir, and Bulu; and *y*, as in Lampong, Gayo, and Pampanga.

The following comparative table will illustrate the most natural operation of the law, that is, where the RGH consonant is intervocalic and hence least liable to the influence of secondary phonetic laws.

<i>R</i>		<i>G</i>		<i>H</i>	<i>Y</i>	<i>Zero</i>			
Toba	urat	OForm.	ugat	Day.	uhat	Lamp.	oya	OJav.	uwad
Mal.	urat	Favor.	oggach	Bulu	ohad	Gayo	uyöt	NJav.	uwat
Ach.	urat	Tag.	ugät	Sang.	iha	Pamp.	uyát	Nias	uwo
Mkb.	urat	Bis.	ugät			Batan	úyat	Sumb.	uwa
Mak.	ura	Mongd.	ugat						
Bug.	ure'	Chro.	gugat						

The languages of the OJav. type have developed a parasitic labial glide *w* between the two vowels thrown together by the loss of the RGH consonant. Chro. *gugat* has an initial parasitic *g*, as in *gunum* 'six'.¹ The phonetic changes seen in the other non-Philippine examples are due to the regular operation of secondary laws, and need not be detailed here. The Malagasi cognate *uzatra* shows *z* for RGH, as in Mlg. *zahitra* 'raft', beside Mal. *rakit*, Bis. *gákit*. This *z* is shown by Ferrand² to have evolved from a spirant *y* in OMLg. In Mlg. *vay*, *vey* 'burning coals', beside Mal. *bara*, Tag. *bága*, this spirant seems to have coalesced with the Mlg. *i*, the frequent representative of IN *a* in final position. The RGH consonant in final position is lost in Mlg., as in several other IN speech groups, e. g. Mlg. *uhi*, *uhu* 'tail', beside Mal. *ikor*. Toba *ihur*, Bis. *ikog*. Further it also becomes *r* medially, e. g. Mlg. *avaratra* 'North', beside Mal. *barat*, Tag. *habúgat*, Bulu *awahat*. Čam has *r* initially and medially, but drops the RGH consonant finally, with compensatory lengthening of the preceding vowel; e. g. Čam *raturh* 'hundred', beside Mal. *ratus*, Bis. *gátús*; Čam *barā* 'shoulder', beside Day. *baha*, Toba *abara*. Bis. *abága*; Čam *ulū*

¹ Compare my paper, *Consonant changes and vowel harmony in Chamorro*, pub. in *Anthropos* vol. v.

² *Essai de phonétique comparée du malais et des dialectes malgaches*, Paris 1909, p. 106.

'snake', beside Mal. *ular*, Ibg. *ulág*, and Jav. *ulā*, the Jav. showing the same loss and compensatory lengthening. Certain Phil. languages represent RGH by *l* (see below p. 73).

The Philippine Islands¹ form the center of the speech territory in which the consonant of the RGH series appears as *g*. Hence it is customary to classify as belonging to the Philippine group, not only languages of that archipelago, but such other speech groups as show the *g* of that series. Among the non-Philippine languages of this category are the Duzon and Iranun of N. W. Borneo, the Singkan Formosan and the Favorlang of Formosa, the Ponosakan and Mongondou of North Celebes, and the Chamorro of the Marianas. The following examples will further illustrate the *g* languages in non-Philippine territory.

Duz. *wagas* 'unhulled rice', Iran. *bugas*, Chro. *pugas*, beside Bis. *bugás*. Mal. *beras*, Day. *behas*.

Duz. *waig* 'water', Iran. *aig*, beside Mgd. *ig*. OJav. *er*, Mal. *ayer*.

Duz. *gamut* 'root', beside Tag. *gamút*, Ilk. *ramút*, Tonsea *amut*.

Duz. *niog* 'cocoanut', Chro. *niyo(g)*, beside Tag. Bis. *niüg*, Mal. *niyur*.

SForm. *pagig* 'ray fish', beside Tag. Bis. *pági*, Mal. *pari*, Day. *pahi*, where SForm. *pagig* shows final parasitic *g*, as in *wagiog* 'storm', beside Phil. *bagyu*.

OFavor. *tagga* 'blood', Chro. *haga*, beside Ibg. *dága*, Mal. and Čam *darah*, Bulu *raha*. The OFavor. *tagga* shows secondary gemination of *g*, as in *oggach* (Tag. *ugát*), and *t* for *d*, as in OFavor. *tarran* (Phil. *dalan*) 'way'. Chro. *haga* has *h* regularly for initial *d*.²

Ponosakan and Mongondou *dugi* 'thorn', beside Ibg. *dúgi*, Toba *duri*, Day. *duli*.

Ponos. *gowii* 'night', beside Tag. Bis. *gab'i* and *gabí'i*, Ilk. *rabí'i*. Sang. *hebbi*. Nias *owi*.

¹ For the geography of the Philippine languages and dialects see Scheerer's sketch map in his work, *The Batán dialect as a member of the Philippine group of languages*, Div. of Eth. Pub. vol. v, part i, Manila 1908, p. 17.

² See Conant, *op. cit.*

Mongd. *doñoy* 'hear', beside Bis. *duñug*, Mal. *deñar*, Sang. *dinihě*.

In the three great languages, Tagalog, Bisaya (with its many dialect variations), and Bikol, together constituting the speech of seventy per cent of the entire population of the Philippine Islands, the RGH consonant invariably appears as *g* in all positions, initial, medial, and final. The same is true of Ibanag (North Luzón), Magindanao (South Mindanao), Sulu, and several other speech groups of minor importance. There are, however, a number of Philippine languages in which the RGH consonant develops other sounds, particularly *r*, *l*, and *y*, as exemplified by the following table, showing the consonant in question in initial, medial, and final position.

<i>G languages</i>	Initial	Medial	Final
Tag.	gamót 'root'	ngát 'vein'	ikog 'tail'
Bis.	gamút	ugát	ikog
Bkl.	gamót	ugát	ikog
Ibg.	gamút ^t	ngát ^t	(niñg 'cocoa-
Mgd.	gamut	ngat	ikug [unt])
Sulu	gamut	ngat	ikog
Bgb.	ramot	ugat	ikog

R languages

Ilk.	ramút	urát	(bibír 'lip')
Tir.	(rohok 'rib')	urat	igor

L languages

Pang.	lamót	nlát	ikól
Knk.	lamót	uwat	
Inb.	damót	nlat	ikól
Bon.	lamót	őäd, wäd, näd	
Klm.	lamot	(darala 'girl')	(bibil 'lip')

Y languages

Pamp.	yamút	nyát	iki
Batan	yamot	úyat	(itioi 'egg')
Sambal	(yábi 'night')	(búyas 'rice')	(tolói 'sleep')

Remarks on the above table.—In the Ibanag examples *gamút*^t and *ugát*^t the final *t* has lost its original pronunciation, and, like the other surd stops *k* and *p*, has become a mere glottal stop (hamza) in Ibg. when final. I write the original surd

stop above the line, since it has its original value when supported by a suffix, *e. g.* *gamután*.

The intervocalic *rr* written by Bennásar¹ in his spelling of Tirurai words, *e. g.* *urrat* 'vein', *urrar* 'snake', is simplified to *r* in this paper, since it is not a case of gemination, but is a trilled *r* which would regularly be represented in the Spanish orthography by *rr* when intervocalic.

Tir. *rohok*, beside Mal. *rusuk*, Bis. Bgb. *gúsok*, has *h* for IN *s*, as in Tir. *liha* 'nit', beside Tag. *lisá*.

Tir. *igor* 'tail' shows *g* for IN *k*, as in Tir. *sigeu* 'elbow', beside Phil. *siku*.

The Kankanai *uwat* and Bontok *ôäd*, *wäd*, *uäd*² show secondary loss of intervocalic *l*, the former with compensatory labial glide *w*, while the latter shows a tendency to reduce the initial *o(u)* to a labial semivowel, as appears from the variant *wäd*.

The *d* of Inibaloï *damót* is also secondary for Inb. *l*, with which it interchanges. Cf. Inb. *ulat* and *ikól*, and see Scheerer, *The Nabaloi Dialect*, p. 102.

Bagobo properly belongs to the *g* languages, as will appear below, *ramot* being one of the few anomalous examples of *r* representation of RGH to be found in that language.

Ibg. *niúg* is cognate with Mal. *niyur*, Tag. *niúg*; and Ilk. *bibír*, Kalamian *bibil* 'lip', with Mal. *bibir*, Ibg. *bibíg*.

Klm. *darala* 'girl' is identical with Bis. *dalága*, a reduplicated form of Mal. *dara*, Mgd. *laga*, *raja*.

For Btn. *itioi*, beside Tag. *itlug*, Mal. *telur*, see below (p. 81). With Sambal *yábi* compare Tag. *gab'i* and Ilk. *rabi'i*, and with Sbl. *búyas* and *tolói* compare Bis. *bugás*, Mal. *beras*, and Bis. *tulóg*, Mal. *tidor*, Jav. *туру*.

The r, l, and y languages in detail. Unlike the Tagalog, or pure *g* type, the *r, l, and y* languages show some irregular-

¹ *Diccionario Tiruray-Español*, Manila 1892, and *Diccionario Español-Tiruray*, Manila 1893. This rule of orthography is, however, not consistently adhered to by Bennásar, *e. g.* he writes *biarung* 'a kind of tree' in his *Observaciones Gramaticales sobre la lengua Tiruray*, Manila 1892, p. 3, while the same word appears as *biárrung* in the *Diccionario Tiruray-Español*.

² The Bontok examples throughout the paper are taken from Seidenadel, *The language spoken by the Bontoc Igorot*, Chicago 1909. Open Court Pub. Co.

ities, their characteristic consonant often interchanging with *g*. They therefore require individual examination.

The r languages. These are the Iloko, spoken on the N.W. coast of Luzón, and the Tirurai, spoken by a mountain tribe of South Mindanao. Bagobo, also spoken in South Mindanao, is very similar to Bisaya in many respects, and generally has *g* like that language. It is possible that the sporadic cases of the *r* representation in Bagobo may be due to the influence of some neighboring mountain dialects, or to Malay. The inconsistencies of its vocalism, doubtless due to the same influence, have been pointed out in my paper on the pepet law.¹ It will appear from the following comparative table that the interchange of *r* and *g* follows different norms in the two *r* languages, and that *r* is more persistent in Tir. than in Ilk. It will also appear that Bgb. is properly a *g* language, as above stated.

	<i>Iloko</i>	<i>Tirurai</i>	<i>Bagobo</i>	
Mal. rebah 'to fall'	rebbá	rebà and gebá	gobbá	Tag. gibá
Mal. rusuk 'side'	rósok	rohok	gosok	Bis. gúsuk
Mal. rakit 'raft'	rákit	gakit		Ibg. gákit
Pamp. ayán 'light, quick'		raàn	gaan	Tag. ga'an
Toba abara 'shoulder'	abága	wará		Ibg. abagá
Mal. duri 'thorn'	dúri	durai	dugi	Bkl. dùgi
Toba uras 'to wash'	úgas	urah(en)	horas	Sulu hugas
Mal. bara 'hot coals'	bára	bará	baga	Bis. bága
Mal. barat 'west wind'	abágat	barat	habagat	Tag. habágat
Day. besoh 'satiated'	bussúg	besor	bossog	Bkl. basóg

The vocalism of the first syllable of Ilk. *rebbá*, Tir. *rebá*, *gebá*, Bgb. *gobbá*, Tag. *gibá*, and that of Ilk. *bussúg*, Tir. *besor*, Bgb. *bossog*, Bkl. *basóg*, is according to the pepet law, and the consonantal doubling in the Ilk. and Bgb. examples, according to the law of gemination of a consonant following original pepet.² Tir. has both *rebá* and *gebá* with slightly different meanings, while Ilk. has only *rebbá*, and Tir. has *g* in *gakit* beside the Ilk. *r* of *rákit*. But in three of the examples Tir.

¹ *The Pepet Law in Philippine Languages*, to appear in an early number of *Anthropos*, to which journal it was sent for publication several months ago.

² Cf. Conant, *Pepet Law*, and Brandstetter, *Wurzel und Wort in den Indonesischen Sprachen*, Luzern 1910, p. 41, who has independently discovered the same law for Ilk.

has *r* where Ilk. has only *g*, namely *wará*, *urah(en)*, and *besor*. The *h* of Tir. *rohok* and *urah(en)* has been treated above (p. 75).

An examination of the Iloko vocabulary reveals a large number of *r:g* variants. The following are selected from a long list:

Ilk. *ribak* 'fragment of pottery', beside the later, but less common *gibak* (Ibg. *gíbak*); Ilk. *baró* 'new', beside *bágo*, in the sense of 'newcomer' (Mal. *baru*, Tag. *bágu*); Ilk. *darás* 'quick, prompt', beside *dagás* (Toba *doras*, Day *dāhes*, Tag. *dag'ús*); Ilk. *bekkór* 'convex', beside *bekkóg* 'concave'; Ilk. *bībír* (obsolete) 'lip', beside the modern *bibíg* (Mal. *bibir*, Ibg. *bibíg*). Ilk. *girái* 'notch' shows this interchange by metathesis in the reduplicated *rig-rigáyan* 'thing notched, leaf with notched edge'.

It appears from a study of all the material for Ilk. that the original representation of the RGH series in that language was *r* unless disturbed by secondary laws. This *r* has been preserved in a large number of the most common words, *e. g.* *rósok*, *ramút*, *urát*, *bára*, *dúri*, *busór*, *tíker*. In other cases the *r* and *g* forms exist side by side, sometimes with different shades of meaning, as seen in the above examples, while in some cases the new *g* has entirely replaced the older *r*. Furthermore some *g* words have crept in from pure *g* languages, chiefly Ibg. and Tag.

The most striking difference between Ilk. and Tir. in the RGH representation is perhaps the treatment of the RGH consonant in final position. It is more commonly *r* in Tir., while *g* prevails in Ilk., *e. g.* Tir. *besor*: Ilk. *bussúg* of the above table; Tir. *běwěr* 'lip', beside Modern Ilk. *bibíg*; Tir. *igor*, beside Bis. *ikug*; Tir. *sawer* 'scatter', beside Bis. *sábweg*; Tir. *rěēr* 'neck', beside Bis. *l'og*. Tag. *l'ig*, Mal. *leiher*; Tir. *urar* 'snake', Ilk. *úleg*.

But for the *g* of this last Ilk. example, see below p. 77.

As a general rule both languages have *g* when preceded by original pepet and followed by a non-pepet vowel; *e. g.* Tir. *begás* 'rice', Ilk. *bagás*, Tag. *bigás*, Bis. *bugás*, Mal. *beras*, Toba *boras*, Day. *behas*; Tir. *tegás* 'hard', Ilk. *sagát* (metathesis), Tag. *tigás*, Bkl. *tagás*, Bis. *tugás*, Bgb. *tuggás*, Mgd. *tegás*, Mal. *teras*, Toba *turas*; Tir. *begat* 'weight', Tag. *big'át*, Bis. *bug'át*, Toba *burat*, Day. *behat*. Both languages have *r* between the two

pepet vowels in Tir. *feres* 'to press out', Ilk. *perrès*, Sund. *peres*, Day. *pehes*, Sang. *pēhasē*.

An examination of the vocabularies of these two languages during the preparation of the present paper has revealed the following special law for the liquids *l* and *r*: *Iloko and Tirurai, like Toba and Dayak, do not admit both l and r in the same Grundwort.*¹

In Ilk. this is avoided by the *g* representation of RGH in words having an *l*; e. g. *úleg* 'snake', beside Mal. *ular*. In Tir. it is avoided either in the same way, e. g. Tir. and Ilk. *láyag* 'sail', beside Mal. *layar*, or, and this is by far the more common, by an assimilation of liquids in which the *r* of the RGH series generally assimilates the neighboring *l*, e. g. Tir. *urar* (Mal. *ular*), as is regularly the case in Toba and Day., e. g. Toba, Day. *rayar*, beside Mal. Sund. *layar*, Tag. Bis. Ibg. *láyag*. But exceptionally the RGH *r* is assimilated to the neighboring *l*, e. g. Tir. *lilei* 'post' (Tag. *haligi*, Mal. *diri*), where the Tir. *l* of the RLD series prevails. The following tabulation will show at a glance how the law affects the two languages.

<i>Iloko</i>	<i>Tirurai</i>	<i>Other languages</i>
<i>láyag</i> 'sail'	<i>láyag</i>	Mal. Sund. Ach. <i>layar</i> , Toba, Day. <i>rayar</i> , Tag. Bis. Bkl. Ibg. Bgb. Sulu <i>layag</i>
<i>búlig</i> 'bunch of bananas'	<i>bulik</i> (?)	Mal. <i>bulir</i> , Toba <i>burir</i> , Bis. Bkl. <i>búlig</i>
<i>ribuk</i> 'roil, disturb, confuse'	<i>rebur</i> , <i>ribur</i>	Mal. <i>lebur</i> , OJav. <i>labū</i> , Mak. <i>laboro</i> , Mgd. <i>lebug</i> , <i>lebuk</i> , Bis. <i>lubúg</i> , Bgb. <i>lobbog</i> , Pamp. <i>labúg</i>
<i>úleg</i> 'snake'	<i>urar</i>	Mal. <i>ular</i> , OJav. Cam <i>ulā</i> , Mak. <i>ulara</i> , Toba <i>uluk</i> , Pang. <i>ulég</i>
	<i>rarei</i> 'run'	Mal. Mak. Bug. <i>lari</i> , Mgd. Bgb. <i>lagui</i> , Bis. Bkl. <i>lagiu</i>
	<i>rēēr</i> 'neck'	Mal. <i>leiher</i> , Sang. <i>lehe</i> , Kuyunuu <i>liēg</i> , Bis. Bkl. Sulu <i>li'ug</i> , Ibg. Mgd. <i>lig</i> , Bgb. <i>alig</i>
<i>arigi</i> or <i>adigi</i> 'post'	<i>lilei</i>	Mal. (ber) <i>diri</i> , Day. <i>jihí</i> , Sang. <i>dihí</i> , Bulu <i>arihi</i> , Tag. Bis. <i>haligi</i> , S.-Bis. Bkl. <i>harígi</i> , Mlg. <i>andri</i>

¹ As the question whether IN roots are to be regarded as dissyllabic or monosyllabic has not yet been settled, I employ the convenient term *Grundwort* following the terminology of Brandstetter, *Wurzel und Wort*, p. 3 *et passim*.

For further *l* assimilation in Tir., compare Tir. *lual* 'except', Mal. Sund. *luar* 'outside'. The *r* prevails in the Ilk. cognate *ruar*, in which it agrees with Toba, Day. *ruar*. Compare also Tir. *lalan(en)* 'prohibit', beside Mal. Sund. Mak. *laran*, Toba, Day. *raran*, Sulu *lān* (for **lalan*).

The *g* of Ilk. Tir. *lūyag* may also be explained as a case of stereotyped Phil. *g* to be treated below (p. 82). The surd *k* replaces the sonant *g* in final position in Ilk. *ribuk*. This wavering between final surds and sonants is not uncommon, not only in this language, but elsewhere in the Philippines and in Chamorro.¹ It is possible that Tir. *bulik* 'a kind of wild banana' is to be connected with Ilk. *būlig*, in which case we should have, instead of the regular Tir. assimilation, an example of final RGH *g* becoming *k* just as in Tir. *ribuk*; cf. also Tir. *tanuk* 'sound', beside Mgd. *tanuk*, Tag. *tunóg*, Pang. *tanól*.

The l languages. In Kalamian (North Palawan), Pangasinan, and the related Igorot dialects Inibaloi, Kankanaí, and Bontok, the RGH consonant appears regularly as *l*, exceptionally as *g*, which sometimes becomes the surd *k*. The *l* of these languages is considerably more constant than the *r* of the *r* languages, as will appear from the following table and the additional examples given below.

<i>Kalamian</i>	<i>Pangasinan</i>	<i>Inibaloi</i>	<i>Kankanaí</i>	<i>Bontok</i>	<i>G languages</i>
lamot 'root'	lamot	damót	lamót	lamót	Bis. gamút
labii ² 'night'	lâbi	kalbian	lafi	lafi	Tag. gab'i
kabala 'shoulder'	abalá	awáda	abála		Ihg. abagá
	ulát 'vein'	ulat	uwat	ōād	Bgb. ugat
bibil 'lip'	bibil				Bis. bibig
tenal 'voice'	tanól				Bkl. tanóg

The Inb. secondary *d* for *l* in *damót* and *awáda*, and the loss of intervocalic *l* in Bon. *ōād* are explained above (p. 5).

Klm. *kabala* has an initial parasitic *k* as in *kolo* 'head', beside IN *ulu*. This *k* may also appear medially, as in *takon*

¹ Cf. Conant, *Consonant changes and vowel harmony in Chamorro*.

² Corrected spelling for the Span. orthography *lavii* of Father Jerónimo de la Virgen de Monserrate in his *Vocabulario Castellano-Calamiano*, pub. by Retana in the *Archivo del Bibliófilo Filipino*, vol. ii, Madrid 1896. On this spelling and the whole subject of Span. confusion of *b*, *v*, and *u*, see my *F and V in Philippine languages*, p. 2, note.

'year', beside Tag. *ta'ón*, and finally, as in *polok* 'ten', beside Bis. *puló*, and generally, perhaps always, stands in the place of the glottal stop (hamza).

As the *r* languages avoid the concurrence of *l* and *r* in the same word, so the *l* languages do not allow two *l*'s in the same word when such would be the result of the *l* representation of RGH. In such cases RGH generally appears as *g*, e. g. Pang. *ulég* 'snake', Ibn. *úleg*, Knk. *eweg*, Bon. *úwüig*, beside Mal. *ular*, Tir. *urar*, the Knk. and Bon. examples showing regular loss of intervocalic *l* (see above, p. 74): Klm. and Pang. *ilog* 'river', beside Tag. *ilog*, Mal. *alur*.

The correspondence of Klm. *kilog* 'egg' with its Pang. cognate *iknól* (Tag. Bis. Ilk. *ilug*, Mal. *telor*) is interesting as showing the different evolution in the two languages of the RGH consonant in the same word with an original *l*. In Klm. *kilog* RGH appears as *g* and the original *l* remains unchanged, while the slightly pronounced *t* of Phil. *ilug* degenerates to hamza, which shifts, as often in Klm., to the other side of the vowel *i* and there appears regularly as *k* (see above). In Pang. *iknól*, the RGH consonant persists as *l* and by a dissimilation of liquids the original *l* becomes *n*, to which the *t* is then partially assimilated, becoming *k*. Precisely the same evolution as to liquids is seen in Pang. *moníl* 'bunch of bananas' (Bis. *búlig*, etc. See table p. 77). In this example, furthermore, the *n* produced by dissimilation acts in turn on the initial labial sonant stop *b*, changing it by partial assimilation to the labial nasal *m*. In Klm. the persistence of final *l* of the RGH series in a word beginning with an original *l* is shown by *dikel* 'neck', beside Tag. *líig*, Bis. *líug*, Mal. *leiher*, Tir. *rëër*. Here the repetition of *l* is avoided by changing the original initial *l* to its corresponding sonant stop *d*. The vocalism of the last syllable follows the pepet law, and the parasitic *k* takes the place of the hamza seen in the Tag. and Bis. cognates.

While the *r* languages generally have *g* for RGH when this is preceded by a pepet vowel and followed by any other vowel, Pang. shows *l* under the same circumstances, e. g. Pang. *belús* 'hulled rice', beside Tir. *begús*, Ilk. *bagús*: Pang. *belút* 'weight', beside Tir. *begút*.

The material at hand for the other *l* languages is not sufficient to permit of classification in this particular.

Pang. also shows *l* as the first element of a consonantal group following any vowel, *e.g.* Pang. *ulsá* 'deer', beside Ilk. *ugsá*, Toba *ursa*, Mal. *rusa*; Pang. *belwás* 'alzar ó coger lo que está dentro del agua', Tag. *bigwás* 'tirar el anzuelo'; Pang. *pelsá* 'boil, carbuncle', Tag. *pigsá*, Bis. Bgb. *pugsá*. The last two examples have pepet vocalism of the penult. The exceptional *g* of Pang. *begsái* 'paddle', beside Pamp. *bagsái*, Bis. Sulu *búgsai*, Bgb. *buyse*, Chro. *pogsui*, is probably to be explained as a case of stereotyped *g* (see below, p. 82).

The y languages. As in Gayo and Lampong, the RGH consonant appears as *y* in the Phil. languages, Pampanga, Batan, and Sambal, where it also appears exceptionally as *g*, though most of the exceptions may here be referred to the stereotyped class. The regular representation for Pamp. and Btn. is shown by the following examples: ¹

Pamp. *uyát* 'vein', Btn. *úyat*. Gayo *uyót*. Lamp. *oya*. Tag. *ugát*, Day. *uhat*.

Pamp. *dáya* 'blood', Btn. *rayá*, Ibg. *dágu*, Chro. *haga*, Day. *daha*, Pang. *dalá*, Ilk. Tir. *dára*, Čam. Mal. *darah*.

Pamp. *payáu* (modern *payó*) 'hoarse', Gayo *payo*, Mal. Ilk. *parau*, Tag. *págau*, Day. *pehau*.

Pamp. *yamút* 'root', Btn. *yamot*, Tag. *gamút*. Pang. Klm. *lamót*, Ilk. *ramút*, Tonsea *amut*.

Btn. *itioi* 'egg', Lamp. *telui*, ¹Mal. *telor*, Bgb. *tollog*, Tag. *itlóg*.

Pamp. *iki* 'tail', Lamp. *ikui*, Gayo *ulki*, Mal. *ikor*, Toba *ihur*, Tir. *igor*, Pang. *ikól*, Tag. Bis. *ikog*, Day. *ikoh*, OJav. Čam *ikū*, Mlg. *uhi*, *uhu*. ¹

When final, the *y* becomes *i* and coalesces with a preceding *i* in both Pamp. and Btn., as in Btn. *bíbí* 'lip', Ibg. *bibíg*, Mal. *bibir*; Pamp. *búli* 'cluster of bananas', Bis. *búlig*, Mal. *bulir*, Jav. *wuli*, Mlg. *vuli*, *buli*. With a preceding *a* it forms the diphthong *ai* in both languages, as it does in Lampong, *e.g.* Pamp. *tikái* 'reed-mace, cattail', Bis. Bkl. *tikog*, Ilk. *tiker*, Mal. *tikur*, Mlg. *tsihi*, *tihi*, *šihí* (the examples showing regular pepet vocalism of the ultima): Btn. *vudái*, *budái* ¹ 'snake', Lamp. *ulai*.

¹ The Batan word may now be included under Brand-tetter's *Variation 3* under *Schlange*, (*Mata-Hari*, p. 34), since the only difficulty it presents is the prefixed *v* or *b*, which can easily be explained as an initial parasitic labial glide before the labial vowel *u*. In fact it is pronounced much like the Span. *b* in *bullir*.

Ibg. *ulág*, Pang. *ulég*, Mal. *ular* (pepet in ultima). With a preceding *o* (*u*) the *i* (<*y*) forms the diphthong *oi* (*ui*) in Btu. as in Lamp., e. g. Btn. *itioi* 'egg', Lamp. *telui*; Btn. *busoi* 'enemy'. Ilk. *búsor*, Pang. *busól*. In Pamp. the final diphthong *oi* (*ui*) thus formed contracts to *i*, e. g. Pamp. *iki* 'tail' (but Lamp. *ikuí*). Other examples for Pamp. are *ápi* 'lime', Tag. *ápog*; Pamp. *atní* 'sound', Tag. Bis. *tunóg*. Bkl. *tanóg*. Ibg. *tannúg*, Pang. *tanól* (pepet in penult); Pamp. *absí* 'sated', Tag. Bis. *busog*, Bkl. *basóg*, Ilk. *bussúg*, Bgb. *bossog*, Ibg. *battúg*, Tir. *besor*. Day. *besoh* (pepet in penult). The Pamp. examples *atní* and *absí* show a very common characteristic of Pamp. pointed out in a previous paper,¹ namely, the metathesis of initial consonant + vowel.

In Pamp. RGH regularly appears as *y* when preceded by a pepet vowel, whatever be the character of the following vowel, e. g. Pamp. *báyat* 'weight', Pang. *belát*. Tir. *begat*; Pamp. *abyás* 'rice', Pang. *belás*, Ilk. *bagús*, Tir. *begús*; Pamp. *asyúd* 'sting (of insect)', Tir. *seged*, Tag. *sigúd*. Bkl. Bis. *sugúd* (pepet in both syllables).

The material for Sambal is meager, but sufficient to enable us to classify that language here: Sbl. *yábi* 'night', Tag. *gabí*. Pang. *lábi*, etc.; Sbl. *búyas*, *búya* 'rice', Tag. *bigás*, etc.; Sbl. *ráyo*, *lúyo* 'run'. Bis. Bkl. *lagíu*, etc.; Sbl. *tolói* 'sleep', Tag. *túlog*, Mal. *tidor*, Day. *tiroh*. Mlg. *turi*, *туру*. It appears from the last example that final *y* is treated in Sbl. as in Btu. and Lamp.

In Pamp. RGH frequently appears as *g*, but more often in final position than initially or medially, e. g. Pamp. *gatús* 'hundred thousand', but Btn. *yatús* 'hundred', Mal. *ratus*; Pamp. *abágat* 'west wind', Pang. *abaláten*, Bulu *awahat*; Pamp. *sagúp* 'to skim', Tag. *sagíp*. Toba *sarop*, Mal. *surap*, Day. *sahep* (pepet in ultima); Pamp. *ilúy* 'river', Tag. *ilog*, Mal. *alur*; Pamp. *amóg* or *amíg* 'dew of morning', Tag. *hamóg*, Ilk. *ámor*, Pang. *amól*. The *g* of these examples is anomalous, and an explanation of its irregular appearance in place of the natural *y* is impossible at this stage of our investigation, as is the case with many *g*'s of the RGH series in the *r* and *l* languages. Pamp. *gatús* is probably to be explained as a borrowed word originally taken into the language with the meaning of an

¹ *Pepet Law*.

indefinitely large number, just as in Tag., where the same word means million according to the dictionary of Noceda and Sanlucar. 'Hundred' is *dalan* in Pamp. (*liman dalan* 'five hundred'), and the same word in Tag. *daan*, with secondary Tag. loss of intervocalic *l*. It is quite possible that Pamp. *ilúg* and *sagúp* are cases of stereotyped Phil. *g*, but *abúgat* and *amóg*, together with a considerable number of other *g* examples of unmistakable RGH origin, remain to be explained. On the other hand, the RGH *g* is doubtless rare in Btn. The available material for that language is not copious, and I have noted but one certain example in point, namely, Btn. *agsa* 'deer', beside Ilk. *ugsá*, Pang. *ulsá*, Toba *ursa*, Mal. *rusa*. The *g* frequently seen in Rodriguez's *Catecismo* corresponding to IN *l*, e. g. Btn. *ogo* 'head', beside IN *ulu*, is replaced by the modern *h* (Span. orthography *j*), and is the regular treatment of IN *l* in that language. Sambal has *ilug* 'river' (Mal. *alur*), but shows the regular *y* in *tolói* 'sleep,' where Pamp. (*tulúg*) and the *r* and *l* languages show persistently *g*, which in the last two types may be due to the laws of liquids (see above, pp. 77, 79).

The three-fold origin of the Philippine g. The *g*'s of the Phil. languages may be divided into three classes according to their origin, namely original *g*, the *g* of the RGH series, and that of the RLD series.

In a considerable number of words *g* persists uniformly in the languages of the archipelago unless affected by some secondary law. In order to determine whether the *g* in such cases is original or belongs to the RGH series, comparison must be made with material from other IN languages. Thus the word for 'rayfish' is *pági* in Tag. Bis. Bkl. Mgd. Ibg. Pamp. Pang. Ilk., and *fági* in Tir., where *f* is regular for IN *p*¹, and it is only by comparison with the non-Philippine cognates Mal. Sund. *pari*, Day. *pahi*, that the *g* of the Phil. words is shown to be of RGH origin. We have here what may be termed a stereotyped Phil. *g* of the RGH series.

On the other hand, the *g* of Tag. Mgd. Sulu, Pamp. Pang.

¹ Conant, *F and V in Philippine languages*, Division of Ethnology Publications, vol. v. part ii, Manila 1908, trans. into Japanese by Mr. R. Torii, *Journal Anthropol. Soc. of Tōkyō*, vol. xxiv, No. 283, Tōkyō, Oct. 1909.

lúgi 'loss' is original, as evidenced by Mal. Jav. Sund. Toba, Mak. Bug. Day. *rugi*. Other examples of original *g* are Tag. Pamp. Tir. Bgb. Mal. Jav. Sund. Toba. Day. *dagañ* 'trade, merchant', and Mgd. Mal. Jav. Sund. Day. *getas* 'cut (as string)', Toba *gotas*, Bis. *gutas*, Ilk. *gessút* (metathesis and gemination), Pamp. *agtás* (metathesis), Ibg. *gattát*, these last cognates showing regular pepet vocalism of the penult.

Some words show one stereotyped form running through one group of Phil. languages while a stereotyped variant appears in another. An example in point is the IN word for 'indigo', which shows a medial RGH consonant in Mal. Sund. Čam *tarum* (cf. Bahnar *trum*, Khmer *tróm*), Mak. *taruñ*, Day. *tahun*, Jav. *tom*, while Toba has *tayum* where we should expect **tarum* according to the RGH law. Now the Luzón languages Tag. Pamp. Pang. Ilk. have *táyum* following the Toba variant, while the languages of the southern Philippines, Bis. Bkl. Bgb. Mgd., have *tágum* following the RGH type. Further investigation of such variants would doubtless throw additional light upon the history of Malayan migrations to the Philippines.

Pang. Ilk. and Ibg., like the non-Philippine languages Toba, Karo, and Mentawai, have also a *g* representing the consonant of the RLD series.¹ This correspondence is shown by the following comparative table.

<i>R</i>		<i>L</i>	<i>D</i>	<i>G</i>
·rice (unhulled)·				
Jav.	pari		Mal. padi	Karo page
Sund.	pare		Čam padai	Toba page
Mak.	pare		Mkb. padi	
Day.	paräi			
Tir.	farei	Tag. pálai		Pang. pagéi
Bkl.	pároi	Pamp. pálai		Ilk. págai
S.-Bis.	párai	Sulu pāi (<*palai)		
Btn.	parái			

¹ This *g* has been pointed out for Ibg. and the non-Phil. languages by Kern, *Taalvergelijkende verhandeling over het Aneityumsch, met een Aanhangsel over het klankstelsel van het Eromanga*. Amsterdam. 1906, p. 11, *et passim*, and by Brandstetter, *Prodromus zu einem vergleichenden Wörterbuch der malaio-polynesischen Sprachen*, Luzern 1906, p. 61: *Mata-Hari*, Luzern, 1908, pp. 22, 26.

R		L		D		G	
'how much?'							
Jav.	pira			Bali	pida	Mentw.	píga
Day.	pirä						
Mlg.	firi						
Tir.	firoi	Tag.	ila				
Bgb.	pira	Pamp.	pila			Pang.	pigá
Bkl.	pirá	Bis.	píla				
S.-Bis.	píra	Mgd.	píla			Ibg.	píga
Kuy.	pirá	Sulu	pila				
'nose'							
Jav.	iruñ	Mad.	eloñ	Mal.	hiduñ	Karo	iguñ
Sund.	iruñ			Cam	iduñ	Toba	iguñ
Day.	uroñ			Ach.	hiduñ		
Mlg.	uruñ, uruna			Mkb. (h)	iduañ		
Tumb.	ñiruñ			Duz.	idón		
Sumb.	uruñ						
Tir.	iruñ	Tag.	ilón	Bgb.	idoñ	Ilk.	agón
Mgd.	hiruñ, ñiruñ			Mgd.	hiduñ	Ibg.	igúñ
Klm.	aroñ	Bis.	ilón				
Kuy.	irón	Sulu	ilón				
S.-Bis.	irón						

Further examples of this conspicuous *g* in Pang. Ilk. and Ibg. are the following:

Pang. Ilk. Ibg. *magá* 'dry', beside Tag. Pamp. Bis. *malá*, Bkl. S.-Bis. *mará*.

Pang. Ibg. *lagá*. Ilk. *luga* 'weave matting', beside Tag. Pamp. Bis. *lala*, S.-Bis. *lára*, Bkl. *rára*. where Bkl. assimilates the original initial *l* to the *r* of the RLD series.

Pang. Ilk. Ibg. *sigi* 'throw grain into sieve', beside Tag. Pamp. *sili*, Mgd. *siri*.

Pang. Ilk. *suga* 'thorn', Ibg. *tugá*, Toba *suga*, beside Tag. Bis. *sula*, Mal. *suda*.

Pang. *sogód* 'comb', Ilk. *sugud*. Ibg. *tu,úd*, beside Bis. *sulod*, Tir. Bkl. S.-Bis. *surud*, Mgd. *surut*.

Ilk. *agék* 'sniff'. Ibg. *agók*, beside Tag. *halik*, Mgd. *alek*, Bis. *halók*, S.-Bis. *harók*, Tir. *árek*, Bkl. Bgb. *hadók*. This last example shows regular pepet vocalism of the ultima throughout.

In Pang. an interesting exception to this *g* representation of an intervocalic RLD consonant is to be noted. By a special law of Pang. and its related Igorot dialects, an intervocalic

consonant of the RLD series does not become *g* in a *Grundwort* whose initial or final consonant is the velar nasal *ŋ*. In Pang. the RLD consonant becomes a liquid, *l* or *r*, in such words, while Ilk. and Ibg. show the regular *g*. This is illustrated by the following examples.

Pang. *elén* 'nose', Knk. *elén*. Bon. *ileñ*, Inb. *idón*, but Ilk. *agón*, Ibg. *igín*, Karo and Toba *igun*, beside Jav. *irun*, Tag. *ilón*, Čam *idun*, etc. (see table p. 84).

Pang. *orín* 'charcoal', Inb. Bon. *úlin*, but Ilk. *ógín*, Ibg. *ugín*, beside Tag. Bis. Pamp. Mgd. *úlin*, Bgb. *úrín*.

Pang. *narán* 'name', Inb. Knk. *ńáran*, Bon. *ńáčán*, *ńádan*, but Ilk. *ńágan*, Ibg. *ńagán*, beside Tag. Bis. Mgd. *ńálan*, Bkl. S.-Bis. *ńáran*, Kuyunon *aran*, Isinai *ńaron*, Bgb. *ńádan*, Chamorro *naan*, Jav. *ńaran*, Mlg. *ańaran*, *anaran*, *anaranđ*.

The "Field of Abram" in the Geographical List of Shoshenq I.—By M. G. KYLE, Professor Biblical Archæology, Xenia Theological Seminary.

THE Palestinian list of Shoshenq I on the South wall of the Temple of Karnak is one of the best known of Egyptian inscriptions, having been published by Rosellini (*Monumenti Storici*, 148), Champollion (*Notices Manuscrites*, ii. 113), Lepsius (*Denkmäler*, iii. 252), and Brugsch (*Geographische Inschriften*, ii), though never completely by any of them. Prof. Maspéro has given (*Recueil de Travaux*, vii. 100) selections from the list designed to assist and correct an understanding of Champollion's text, and Prof. W. Max Müller has rendered the same service to all the previous publications and also added a few names never before published in his *Egyptological Researches for the Carnegie Institute*, pp. 51—54, plates 75—87.

Many names in the inscription are destroyed and so lost absolutely, unless a duplicate list be somewhere preserved for future discovery. All the names fully remaining are easily legible, but owing to the facts that some hieroglyphic signs have more than one phonetic value, that, of others, the phonetic value is uncertain, and that the exact equivalency between Semitic and Egyptian characters has never been completely made out, the transliteration of these names is difficult and in a large number of them yet uncertain, and even if transliterated correctly, the identification of the names either with classical or with biblical names and still more with modern names is very problematical; and the task is rendered complex, not only by reason of the phonetic problems, but by reason of the additional fact that the ancient scribe was considerably puzzled over some phonetic and linguistic problems of his own. Some of these problems arose from his ignorance of the Palestinian tongues, some from the list which he copied not being always in exact Geographical order and probably, as

Müller thinks, written in Phoenician script. There will be room for a long time to come for additional identifications and for the correcting of mistakes.

A recent identification of names 71 and 72 as "The Field of Abram" drawing 71 to 72 and making one name there-of, it is proposed in this paper briefly to examine, as probably one of the mistakes to be corrected. We will proceed by the simple method of bringing before us by the aid of the black-board as clearly as possible, all the epigraphical evidence for the various renderings which have been given to the signs on these two shields, that we may be able to estimate correctly the value of this new identification, which is put out in recent times by Prof. Spiegelberg (*Aegyptologische Randglossen*, 1904, p. 14) and in popular form by Prof. James Henry Breasted. Whether either of these scholars be indebted to the other or whether each worked independently, I do not know.

The text placed on the board is that of Prof. Müller. With this text in hand, I made a careful examination of the inscription at Karnak in 1908 and found it copied with that scholar's accustomed accuracy. The list here as published is absolutely correct, not even minute typographical errors, as so often in published texts, have crept in here.

Prof. Breasted, who now brings forward the identification "The Field of Abram," (*A History of Egypt*, 1905, p. 530, *Ancient Records*, 1906, pp. 352—353) does not give there-with his copy of the text, but only the transliteration and identification. It is thus impossible to say whether or not his text agreed with any of the other published copies of the text. If his text differed from Müller's, then he used an incorrect text, which in most cases would set aside the identification altogether. If his text agreed with Müller's, then this transliteration and identification is to be discussed.




The identification, "The Field of Abram," is a very interesting one and, if correct, will be welcomed by every one, but before critics and theologians shall build too many theories there-upon, it is well to understand the exceeding, not to say insuperable, difficulties which lie in the way of the identification.


(1) The inscription on shield number 71 needs but little discussion. Egyptologists differ somewhat about the correct transliteration. Müller prefers "Pa Hekla" which follows exactly the text, always a good way, while Breasted changes

the final vowel to "u," Semitic "i." But it is generally agreed that the whole expression is a Canaanite word with the definite article, the article being translated into Egyptian, and means "The field" here in a relation to what follows similar to the construct state.

(2) The relation between the inscription on shield 71 and that on shield 72 is of the utmost importance. In the identification, "The Field of Abram," 71 is carried over to 72 and made a part of the name. This is impossible; a proper name would not have the article, which the scribe here does not transliterate as though he supposed it could be a part of the name, but translates into the Egyptian definite article; besides, this same combination of "Field," or "Fields," with a following name occurs in the inscription of Shoshenq I, as it still remains, eight times (Nos. 68, 71, 77, 87, 94, 96, 101, 107), an examination of which makes very evident that this is the Egyptian way of representing the Palestinian expression found so often in the Bible, "The villages of," and that "Hekla" means "vicinity," "neighbourhood" or "community" and in the plural, as 107, "Environs" or "villages." Thus the name following "Pa Hekla," in this case identified as "Abram," stands alone. No such complex name as "the Field of Abram" was intended.

(3) But is the name on shield 72 Abram? This is the question of greatest moment. No special importance attaches to this shield at all except for this question. A detailed analysis of the name gives the following:

(a) The first sign , the canal," as a syllabic stands for "mer." This syllable "mer" occurs with great frequency in proper names, especially of Egyptian kings, where it is represented sometimes by , the canal" and sometimes by , the hoe."


That these two signs were always, in these names, interchangeable is not quite certain, but that in the New Empire, from which this inscription comes, they were interchangeable, is certain. "Mer" is used in at least twenty seven of the royal names, as Mer-pa-ba, Mer-em-ptah, and various names compounded with the phrase "meri-amon, loved of amon." In some sixteen of these twenty seven , the canal" is used, beginning with Ramses II and including Shoshenq I. for whom this inscription under discussion was made. So, if this sign on shield 72 be intended for "mer," it would be the perfectly


natural and proper and to-be-expected use of it, and the probability that it should be so transliterated is very great. Moreover, a Semitic name from Palestine beginning with the syllable "mer" is quite to be expected also, as there are twelve Bible names (aside from some Persian and other foreign names), beginning with "mer." Brugsch (*Geographische Inschriften*, p. 68) reads this sign "mer," so, also, Rosellini quoting Lepsius.


But the "𐀓, canal" is thought by some to be also an alphabetic character used in transliteration as an equivalent for the Semitic "𐤍." It is so used by Brugsch in this same list (*Egypt under the Pharaohs*, Broderick edition, p. 376), wherever the sign occurs at the beginning of a name, notwithstanding that he had read the sign "mer" in his *Geographische Inschriften*. Erman, also, according to Breasted (*Ancient Records*, p. 353), so reads the sign in this instance, though Erman in his *Egyptian Grammar*, translated by Breasted, makes it only probably equivalent not to "𐤍," but to "𐤍." Müller also finds the "𐀓, canal" used sometimes as the equivalent of "𐤍."


But it can not be shown that Shoshenq's scribe always used this sign for an initial "𐤍" in the list which he was copying, for even if it could be shown that wherever the "𐀓, canal" occurs at the beginning of a word he used it for "𐤍," it remains that in three, and probably four, instances (Names, 32. 66, 108 and 12(?)) he used another hieroglyph for initial "a," which may have been an "𐤍" in the Canaanite list which he was copying.

(b) The second sign, "𐀓, the crane," is usually a syllabic for "ba" or "bi" and is certainly so used here, and the Egyptian scribe with this list of names before him, probably in Phoenician script, must have chosen this sign intentionally, as he has placed after it the character "𐀓" a determinative of rather indefinite signification which sometimes in transliteration indicates for us the end of a syllable (Müller's *Researches for Carnegie Institute: list of Shoshenq I*, names 13 and 38; *list Thothmes III*, name 84; *list of Rameses 333*, name 73), besides, had he wished an alphabetic character for "b," he had it at hand in the much more usual "𐀓, the boot." Brugsch, in the *Geographische Inschriften*, p. 68, strangely mistook this sign

for ", the goose" and transliterated it "s," but corrects this in his *Egypt under the Pharaohs*.

(c) The third sign ", the mouth," either "ro" or "ra," is here also most probably a syllable, for though it is very often used as an alphabetic character, it, also, is here followed by the termination of a syllable. But the Egyptians did not clearly distinguish between "r" and "l." This sign was used for both these letters, as in the well-known instance in the name "Israel" in Mer-em-ptah's hymn of victory. Maspéro in the *Transactions of the Victorian Institute*, 27, 83, so transliterates it here.

(d) The fourth sign ", the half part" is a New Empire sign for "m." It admits of no discussion, and, indeed, none, I believe, has arisen concerning it. But as the preceding syllable is closed, it begins a syllable here and can not, without straining, be suffixed to the preceding syllable "r" to make "ram" in the name "Abram." It should be followed by a vowel and in this case the scribe has written the vowel.

(5) The fifth sign, ", the arm," according to Erman in his *Egyptian Grammar*, translated by Breasted, is equivalent to Semitic "y" and, in any case, whether one accepts the equating of Egyptian and Semitic vowel letters or not, is the strongest of the Egyptian vowel letters, but is entirely ignored in the transliteration "Abram."

The examination of the reading "The Field of Abram" may be summarized thus:

(1) The inscription on Shield 71, "Pa hekla," is not a part of the name, but a Canaanite descriptive phrase like "The villages of," or "The environs of."

(2) The first sign of shield 72, "the canal," may be an "a" but it may also be the syllable "mer," as it usually is.

(3) The second sign, "the crane," is clearly intended by the scribe to be a syllable, a "b" followed by a vowel and not joined immediately to the "r" following.

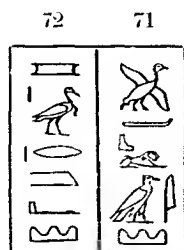
(4) The third sign, "the mouth," is probably an "r" but quite possibly an "l" and in either case, is also followed by a vowel making a complete syllable.

(5) The fourth sign, "the half part," "m," can not naturally be joined to the "r" preceding, but should begin a syllable.

(6) The last sign, "the arm," is a strong vowel letter which

ought not without special reasons to be ignored in the transliteration, and in fact is needed after the "m."

The most probable transliteration yielded by this analysis is "Merbiroma" or "Abiroma" or perhaps better still "Abirama." The identification "Field of Abram," scarcely comes within the bounds of possibility, certainly has little probability, and any theological or critical discussion made to depend upon it is exceedingly precarious, not to say hopeless.



List of Palestinian Cities by Shoshenu I
From W. Max Müller's *Egyptological Researches*.

Printed by W. Drugulin, Leipzig (Germany)

The K-Suffixes of Indo-Iranian. Part I: The K-Suffixes in the Veda and Avesta.—By FRANKLIN EDGERTON.

Chapter I.

Description of the Suffixes.

1. The ultimate aim of this paper is to give a complete and detailed account of the suffix *-ka* and related suffixes in Sanskrit and Avestan, covering all their occurrences throughout the entire history of the languages, so far as these are accessible. For both theoretical and practical reasons, however, it has seemed best to divide the Sanskrit field, and the first part of the work will deal exclusively with the Vedic period. In that term I mean to include Mantras, Brāhmaṇas, Āraṇyakas, Sūtras and Upaniṣads, so far as their linguistic matter is available. I have gathered the materials for the investigation in the first place from Monier-Williams's *Lexicon*, 2nd edition, supplemented and verified by constant reference to the larger and smaller Petersburg lexicons and to the original texts. The number of cases in which I discovered mistakes in the redaction of M.-W.'s lexicon was so small as to be entirely negligible; the small sprinkling of wrong references &c. which have come to my notice originated in nearly every instance in the *Pet. Lex.* itself. I feel therefore especially appreciative towards the work of the redactors of the Oxford lexicon. Profs. Leumann and Cappeller, whose careful scholarship has given us such a valuable aid to this sort of research.

2. There is, however, no Sanskrit lexicon in existence which even approaches the completeness which would be attained by good word-indices of the various works included. In the Veda, with which alone we are now concerned, this deficiency is especially felt in the Sūtra and Upaniṣad periods. These

seem to have been only scantily covered by the Petersburg lexicon; and the successors of Boehtlingk and Roth have done little to fill the gap. Fortunately we now have, in Col. Jacob's excellent Concordance, a word-list of the principal Upaniṣads; and from this have been extracted scores of words in *-ka* which would otherwise have been unnoticed. As for the older Vedic works, the indices to the RV. and AV. by Grassmann and Whitney have been used with profit, and from Whitney at least several AV. words have been discovered which are not in any lexicon. These facts are mentioned as showing the crying need which exists for indices of the principal Vedic works. Until they are produced any such undertaking as the present one must rest for the most part on the more or less unstable ground of the dictionaries.

3. It is hardly necessary to defend the division of the subject into the Vedic and Post-Vedic periods. In the Veda we find the small beginnings of several of the commonest uses of the Classical suffix *-ka*. There is no Classical use of the suffix which is not foreshadowed in the Veda; but there are one or two Vedic uses which practically die out before Classical times. That is to say, we find here, as in most other linguistic points, that in general there is a line of cleavage between the Veda and the Sanskrit of later times, although as a matter of course the two periods shade into each other, and there is in reality no such sharp break as we are compelled to make for practical purposes. In fact, as far as the suffix *-ka* is concerned, the Upaniṣads show uses which agree much more closely with the language of the Mahābhārata than with that of the Brāhmaṇas, to say nothing of the Vedic mantras. Nevertheless, I have not ventured to disturb the traditional classification, which of course is on the whole justifiable, and have included the Upaniṣads in the Veda.

4. The suffix *-ka* in all its ramifications is one of the commonest suffixes of the Classical Sanskrit language; and although it is much less common in the Veda, it is by no means rare from the earliest times.

5. I shall not at present attempt to go extensively into the question of the prehistoric (I.E.) suffix or suffixes from which the Sanskrit *ka* is derived. According to the theory of gutturals now usually accepted, Skt. *k* may go back to I.E. *k* or *q*. And accordingly two independent suffixes, I.E. *-kos* and

-gos, are actually assumed by Brugmann as antecedents of Skt. *ka*,—certainly not without much show of probability (cf. Lat. -quus and -cus). Whether right or wrong, this division of the suffix is not only unnecessary but quite impossible within the Sanskrit language itself. It must be said that the suffix -*ka* on the whole presents itself to the feeling of the investigator as a single unified and coherent suffix, which in the early language at least is quite clearly and narrowly circumscribed in its use. The widely divergent meanings which forms of the suffix show in some later developments are all demonstrably secondary in point of time, and in most cases it is furthermore easy to trace their semantic evolution from one or another of the more primitive uses.—In Chapter VI we shall take up the use of the suffix in Avestan, and shall also add a few words on its appearance in Lithuanian (based on Leskien's work). From these may then be deduced, in a very tentative and experimental way, an outline of the apparent uses of the suffix in the *Ursprache* in so far as they are indicated by these languages.

6. *Forms of the ka-suffixes*.—The Veda has a few adverbial forms (*īdhak* &c.) where the suffix is simple -*k*. There is a small group of words of doubtful relationship in -*ku*, usually preceded by *ā*; they are very few in number, and show no agreement as to signification, so that I have not thought it worth while to make an independent chapter of the suffix -*ku* or -*āku*, but have treated these words along with the *ka* suffix. The Classical Skt. has a few words which seem to show a suffix -*ki*, generally forming patronymics; cf. *sāūrāki* (M.S. 3. 1. 3) which may be a Vedic instance. Otherwise all the suffixes which we treat here end in -*ka* masc. or neut. and -*kā* or -*kī* fem.

7. *The feminine -ikā*.—In all cases of masc. and neut. words in the suffix *ka* preceded by *a*, whether the *a* is part of the base or of the suffix, it is possible (and in most cases usual) to form corresponding feminines in -*ikā*, rather than in *a-kā* or *a-kī*. This rule applies to all periods of the Skt. language from RV. onward (cf. *iyattakū* -*iyattikā*, a RV. instance). The fem. forms *akī* and *akā* are, however, not rare; and even *ikī* appears to be found from an *aka* masculine in one or two cases (see s. v. *ātīkī*, General Index), though this is not certain.—Because of the regularity of the fem. in *ikā* it becomes unnecessary—and

in fact impossible—to set up a separate category for these words. Where a masculine word in *-akā* requires a feminine, the ending *ikā* is to be expected; and all statements in this thesis are to be understood with that in view. It should at the same time be borne in mind that *akī* and *akā* also occur, sometimes from the same words which also form the more regular fem. in *-ikā*. There seems to be no rule by which it can be determined antecedently what form of the feminine is to be expected.

This formation appears to be an inheritance from something of the same sort in the *Ursprache* (cf. the Lithuanian phenomena mentioned in § 117). It is doubtless connected with the fem. suffix *ī*, associated so commonly with masculines in *a*. The regular fem. of any adjective stem in *a* was formed with *ī*; and it was an easy step, therefore, to form a fem. in *i-kā* (with *ī* instead of *ī*, § 32b) to a masc. in *a-ka*, by taking the fem. of the original adjective as a base. This was then generalized into a “suffix *ikā*,” applied as a fem. to any masc. in *-akā*, even when no fem. base in *ī* could have existed. Other formations from feminine adjectival bases are *lohīnīkā* (Āp. Gr. &c.) from the fem. of the adj. *lōhita*; and even *hāriknīkā* (AV.) from a fem. **hāriknī* (not preserved) to *hārita*, like *āsiknī* to *āsita*.

8. *The Secondary Suffix ka*.—The suffix *ka* is essentially a secondary suffix: i.e. it is affixed to nominal or pronominal stems. There are a few words in which it has the appearance, at least, of being added directly to roots or verbal bases; we shall deal with them later. Secondary *ka* may be divided into four subdivisions. For practical reasons, because I have been unable to invent any concise and appropriate names, I have had recourse to numbers in designating them. I realize that this arbitrary method of nomenclature is open to grave objections. But any truly descriptive names for these categories would be so cumbersome as to be quite incapable of practical use; and it has therefore seemed better to me to have recourse frankly to numerals as arbitrary symbols instead of applying incomplete or misleading epithets.

A. **The Suffix 1 ka.** (Nouns or Adjectives of Similarity or Characteristic.)

9. The suffix *ka* is added to nominal stems to form other nouns or adjectives, with the meaning “partaking of the nature

of," "having the characteristics of," "similar to," "like;"—or, it is added to adjectives or adverbs to form nouns or other adjectives or adverbs with the meaning "characterized by." "having the quality of."

This is the most primitive use of the suffix, at least as a secondary suffix. All other secondary uses are developed out of it.

Ex.: *nābrikā*, navel-like cavity, < *nābhi*, navel.—*maṇika*, hump, water-jar, < *maṇi*, pearl, lump &c.—*nāḍikā*, throat, < *nāḍi*, tube.—*madhyamikā*, middle finger, < *madhyamā*, middle.—*pūtika*, n. of a plant, < *pūti*, foul-smelling.

10. (*The Diminutive ka*).—From the meaning "similar to," "like,"—the suffix *ka* often comes to mean "only similar to," i. e., "not equal to," and thus arise the well-known diminutive, deprecatory and contemptuous uses of the suffix, which probably existed once in all Indo-European languages, but which are more striking and prominent in Sanskrit than anywhere else. In Sanskrit the suffix may be added with some such force to nouns, adjectives, pronouns, adverbs, participles, and even (once) to a finite verb-form. A detailed classification will be undertaken in Chapter IV; for the present it will be enough to distinguish the following main heads.

I. *True Diminutives* (of size, importance, &c.): as *kanīnakā*, little boy, < *kanīna*, boy.—*muhukā*, moment, < *mūhu* (or *muhū*).—*arbhakā*, tiny, < *ārbha*, small.—*babhrukā*, brownish, < *babhrū*, brown.—*abhimādyatkā*, a little tipsy, < *abhimādyat*, drunk.—*hōtrka*, secondary priest, < *hōtr*, priest.

II. *Endearing Diminutives*: as *ambikā*, dear little mother, < *ambī*, mother.—*putrakā*, sonny, < *putrā*, son.

III. *Pitying Diminutives*: as *kṣullakā*, poor (helpless) little, < *kṣudrā* (**kṣullā*, prakritized form).

IV. *Diminutives of Inferiority* with evil connotation, often called *Pejoratives*: including—

(1) *Contemptuous Diminutives*, where the idea of smallness carries with it that of weakness or wretchedness and contempt: as—*usrikā*, worthless bullock, < *usrā*, bull.—*rājakā*, wretched kinglet, < *rājan*, king.—*bhinnaka*, crushed and worthless, < *bhinnā*, broken.

(2) *Pejoratives* in the narrower sense, or *Imprecatory Diminutives* as I have ventured to call them, because the suffix is often equivalent to a curse or imprecation accompanying the

word to which it is applied: as—*açvakā*, accursed horse, < *āçva*, horse,—*anantaka*, accursed *Ananta* (a serpent-demon).—*rūpakā*, evil phantom, < *rūpā*, shade.—*kṛtaka*, artificial, false, < *kṛtā*, made.—*anyakā*, other scoundrels, < *ānya*, other.

(3) Diminutives of *Obscene Humor*, in a certain range of popular composition which is offensive to modern sensibilities, and presumably for that reason little noticed as yet. For instance, in the lascivious ribaldry of some of the Kuntāpa hymns, and in parts of the Açvamedha ceremony, various slang terms of extreme vulgarity appear with this suffix: as—*dhānikā*, *dhāarakā*, the vagina, < *dhāna*, *dhāra*, receptacle.—*çlakṣṇikā* adj. slippery, of the sexual organs in coition, < *çlakṣṇā*, slippery.—*muṣkā*, testicle, < *mūṣ*, mouse.

Modern parallels will doubtless occur to everyone.¹

V. *Generic Diminutives*, with nouns of masculinity and femininity—like Ger. *Männchen*, *Weibchen*: as—*vīrakā* and *maryakā*, male (*Männchen*), < *vīrā*, *mārya*, man; so *dhénukā*, *mahīlukā*, female. See § 87 ff.

VI. Diminutive as attribute of the *female sex*, and grammatical concomitant of feminine gender. See § 90 below. Not to be confused with the foregoing, which is of totally different nature and origin. Ex.: *pradātrikā*, a female giver, < *pradātṛ*, giver.—*candrikā*, the moon (as fem.) < *candrā*, moon (masc.).

B. The Suffix 2 *ka*. (Adjectives of Appurtenance or Relationship.)

11. Next, the suffix *ka* forms secondary epitheta, mostly adjectives, from nouns or pronouns, with the meanings “connected with,” “having to do with,” “belonging to,” “of;” and these secondary words, in many if not most cases, take Vriddhi in the first syllable. Here are to be included the patronymics

¹ These three categories, and especially the imprecatory and contemptuous ones, are closely connected. It is often hard, and sometimes next to impossible, to decide which idea predominates in a given word. For instance in the refrain *nābhantām anyakēṣām jyākā ādhi dhānvasu*—RV. 10. 133. 1 ff.—there seems to be no doubt that an imprecation is hurled at certain enemies: “Let the damned bowstrings of the others. devil take them! be torn off from their bows!” But while this idea predominates, it would be rash to deny the presence also of a contemptuous note; for it is quite like a Vedic charm-maker to dwell with great insistence on the scorn he pretends to feel for enemies, however much he may really tremble before them. Indeed, this is a common trick of magic in every age and land.

which are occasionally formed with this suffix.—This heading is of course developed out of 1 *ka*.—Ex.: *pāçuka*, animal (adj.), of an animal, < *pāçu* or *paçu*, animal (n.).—*ātmaka*, of the *ātmān*.—*cāturhotṛkā*, of the *cāturhotṛ* (rite).—*dēvaka*, divine, < *devā*, god.—*asmāka*, ours, of us < *asmā* (pron. stem), we.—*napāṭka*, pertaining to a grandson, < *nāpāt*, grandson.

Whitney, whose entire treatment of the suffix suffers from over-reliance on the native grammarians, does not recognize the use of the simple *ka* with Vriddhi, and calls *bhāvatka* (classical) < *bhavat* “anomalous.” Instead he follows the Hindus in setting up (1222j, k, l) two Vriddhi-taking secondary suffixes, *aka* and *ika*, of which he says that no instances of *aka* (unless *māmakā*) and few of *ika* have been noted in the Veda, —meaning, doubtless, the Vedic Mantras.¹ The facts are these:

In the second category of the suffix *ka*, the non-possessive secondary adjectives,² the derived suffix *ika* (see § 14) makes a strong bid to drive out of the field its competitor *ka*. In the Veda, if we count *i*-stems like *āgnika* &c. as having the suffix *ika*, there have been recorded 118 words in *-ika*, 50 in *-ka* (besides 3 in which *ka* follows an *i*-stem with no Vriddhi). Among the *-ika* words, Vriddhi overwhelmingly predominates; in the *-ka* words, it appears in more than half the cases. Exact figures cannot be given with safety, because in some cases the primary word had itself a Vriddhied vowel, and in others its stem ended in *-i*. There are only 13 cases where *ika* in this sense certainly occurs without Vriddhi, out of 118. Out of the 50 clear cases of the suffix *-ka* (i. e. where the suffix cannot be confused with *ika*) 21 clearly have Vriddhi, 19 clearly do not have it, and 10 are doubtful. Of the 21 which have Vriddhi, 14 are formed from *a*-stems (or *an*-stems, weak grade in *-a*), but *seven from stems in other finals*, showing conclusively that *the suffix must have been ka, not aka*. The Classical language adds many other instances; this suffix is much commoner there than in the Veda. The supposed secondary Vriddhi-causing suffix *aka* is largely or wholly a grammatical fiction; in the Veda at least, it never existed at all. Instead

¹ But even so restricted the statement is inaccurate; e. g. *cāturhotṛkā* < *cāturhotṛ* (M.S.) and *kāverakā*, patronymic from *kūvera* (AV.); also *tāvakā* (RV.) analogous to *māmakā*, and others.

² Which alone are concerned here, since Vriddhi occurs nowhere else.

we must recognize this secondary Vriddhi-causing use of the suffix *-ka* added both to *a*-stems and to others. Tho never excessively common, it occurs earlier and more frequently than the grammars have so far given it credit for.

C. **The Suffix 3 ka.** (Adjectives or Substantives of Possession.)

12. The third category of the secondary suffix *ka* is made up principally of secondary adjectives (as in the case of 2 *ka*) with the meaning "having," "possessing;" also "consisting of," with numerals,—a frequent use. Ex.: *parutka*, having joints, < *pārus*, joint.—*dvāarakā*, n. of a city, "City of Gates," < *dvāra*.—*āṇḍīka*, having bulbs, < *āṇḍī*, egg, bulb.—*catuṣka*, having or containing or consisting of four, < *catūs*; so *daṣaka* &c.

This force of the suffix is not very common with uncompounded words. But because of the accidental appropriateness in semantics, it was added frequently to *Bahuvrīhi* compounds, and gradually came to be felt as peculiarly appropriate to them. There are a few instances of this in the Vedic mantras. In the Brāhmaṇas it becomes not uncommon; its frequency constantly increases in the Sūtras and especially in the Upaniṣads, where it flourishes with as much luxuriance as in the later language.—In the early parts of the Veda it is interesting to note that it is much commoner when the last part of the compound is not an *a*-stem, and is especially frequent with consonantal stems, showing a vigorous (even if unconscious) striving after uniformity of declension at that early time. By means of the harmless suffix *ka* any Bahuvrīhi (as in later Skt. any noun whatever) not of the *a*-declension could be easily brought into line with the *a*-stems, which formed the great bulk of the noun declension.—See § 53ff., especially 54. Examples are: *acakṣuṣka*, having no eyes, < *a* + *cākṣuṣ*, eye.—*trikadraka*, having three *kādrus*, < *trī* + *kādru*, a sort of vessel.—*saptadhātuka*, having (consisting of) seven elements, < *saptā* + *dhātu*, element.

D. **The Suffix 4 ka.** (Active or Verbal words.)

13. In a few secondary formations,—to wit: *āntaka* ("Ender," Death, < *ānta*, end) *ṣṭitaka*, *hlādaka*, *yācanaka* and *vimanyuka*—the suffix *ka* has distinctly an active verbal force. These words may be more conveniently treated in connection with the derivative *ka*-suffixes which show the same value; see § 19. The origin of this usage lies perhaps partly in some of these derivative suffixes themselves, and certainly in part

in the "primary" *ka* words of corresponding meaning (see § 28).

14. **The Suffix *ika*.**—This is a secondary adjective-forming suffix whose range of meaning exactly coincides with 2 *ka* and 3 *ka*, but chiefly with 2 *ka*; in the possessive-adjective sense it is very rare. It must of course have originated, by clipping, from *i*-stems + suffix *ka*. The adjectives formed with it show meanings like "connected with," "belonging to," "of." It almost always (in these meanings, = 2 *ka*) causes Vriddhi of the first syllable; and if the primary word is a compound, it occasionally takes Vriddhi in the first syllable of both its parts. I have found only 13 cases in the Veda where Vriddhi does not occur. See § 11.—The Vriddhi-causing suffix *ika* is a mark characteristic of the language of the *Sūtras*, where it is very common. In the *Brāhmaṇas* it is rare, in the *Mantras* almost unknown; in the *Upaniṣads*, while not uncommon, it is much less frequent than in the *Sūtras*. Ex. (= 3 *ka*): *tūṇḍika*, having *tūṇḍa*'s (tusks or teeth).—(= 2 *ka*): *jyotiṣtomika* of the *jyotiṣtoma* (rite).—*āgniṣtomika*, of the *agniṣtomá* (rite), *ānuyājika*, of the after-sacrifice (*anuyājá*).—*cāturthika*, of the 4th (day). < *caturthá*, fourth.

15. **The Suffix *aka*.**—This appears (certainly in the Veda) only as a "primary" suffix, added to verbal rather than to nominal bases,—if we rule out the two words *madhvaka* and *prṣātaka*, apparently formed from *mádhu* and *prṣat* respectively.¹ Perhaps a **madhva* and a **prṣāta* are to be hypothesized.—Three uses of "primary" *aka* occur. Of course they cannot be primitive: they must have arisen through suffixal adaptation from secondary noun formations in *a-ka*; but one of them at least becomes so widespread that it cannot be denied its independence. The other two stand on more uncertain foundations; but on the whole some limited range may best be allowed to them too.

16. (1) Most dubious, and showing least claim to independent rank, is this branch of the suffix *aka*. The RV. contains two words in which *-aka* seems to convey the force of a *gerundive-adjective*. They are *sáyaka* "to be cast," and as a noun "arrow:"

¹ Note that neither has Vriddhi; cf. § 11, where the supposed "secondary suffix *aka*" is delt with. (Cf. also *patantaka* (Word List. s. v.)

and *su-lābhikā* (fem. to *-*aka*)¹ "easily to be won," from the roots *si* and *labh*. It has been usual among grammarians to class *sāyaka* with 3 *aka* as a participial adjective, which does violence to its meaning (not "throwing," but "to be thrown"!) No noun *sāya* exists with any meaning from which it could possibly be derived. As for *sulābhikā*, though by some mental contortions it might be derived from the noun *lābha*, it is certainly much more simple and natural to regard it in the other light. The only objection is that there seems to be in *sulābhikā* as used in RV. 10. 86. 7 (the only occurrence) a suggestion of the obscene (erotic) Diminutive. It is an epithet address by Vṛṣakapi to Indrāṇi; the whole passage where it is found reeks with that licentious vulgarity which naturally suggests such a value in the suffix *-ka*. (See §§ 85, 86.) This, however, does not seem to me necessarily inconsistent with the derivation of the word put forward. Appearing in such a context any word in *ka*, however reputable in origin, was bound to take on the vulgar coloring which was a prominent characteristic both of the suffix in general, and of the verses in which the word appeared. Probably the original force of the word was gerundival, and the obscene suggestion is secondary.

17. (2) Secondly, in a small group of words the suffix *aka* seems to give the value of a noun of action, when added to a verbal root. As the primary suffix *-a* often has this meaning, it is easy to see how this force of *aka* originated, through the medium of *-a* + secondary *-ka*. There are not many of these words which occur without the occurrence of a parallel noun in *-a*; they number not more than seven or eight in the entire Veda. But a careful consideration of the words and the passages where they occur has convinced me of the genuineness of this use of the suffix. No certain instance appears before Brāhmaṇa times.—The root has the same form which is found in the next category of *-aka*.—The nouns are mostly neuter (e. g. *āçaka* in *ān-āçaka*, not-eating, a fast, < *aç*- eat);

¹ It has been suggested to me that *sulābhikā* might be considered to have an *active* value; in other words, that the usual interpretation is wrong, and that the word means "well embracing, giving a good embrace." This is possible; but against it must be reckoned the fact that this active force of the suffix *aka* is practically not found in the earliest period of the language. In fact, the RV. has not a single instance.

but one certain fem. in *-ikā* occurs—*abhiméthikā* (ÇBr.) < *abhi*—*Vmith*. See § 95.

18. (3) The only commonly recognized use of primary *-aka* is its use in forming nouns of agent or adjectives of participial value from verb-roots. It is a late development, by analogy from certain words in simple *-ka*. There is not one instance in the RV.; for *pāvāká*¹ (so explained by Sāyana—"çobhaka"—"purifying") and *sāyaka* (see § 16) do not fit semantically. The earliest instances are all nouns of agent (1 or 2 in AV., 2 in VS., 2 in the Brāhmaṇas). Of six instances in the Sūtras, five are nouns. Only in the Upaniṣads does the suffix acquire any frequency, and only here does it develop into a regular verbal adjective, equivalent to a present participle, and sometimes taking participial constructions. The Upaniṣads have over 30 examples. They represent, in this respect as in others, approximately the condition of the later language. See §§ 96. 97. Ex.: *abhikrōçaka*, reviler, < *abhi*-*kruç*. revile.—*sañjivaka*. animating. < *sañ-jīv*, animate.—*yācaka*, begging. a beggar. < *yac*, beg.

19. The origin of the suffix is not quite so simple as might appear at first sight. It is, indeed, not uncommon to find the primary suffix *-a* giving the force of a noun of agent, or even of a verbal adjective. But it so happens that there are very few demonstrable cases in the Veda where to such a noun or adjective was formed a secondary noun or adj. in *-ka*. The nouns *vādḥaka* (AV.), *cāraka* (ÇB.), *ghātaka*, *varaka*, *prasarpaka* (Sūtras) are among the few clear instances (from *vadhā*, *cara* &c.); and three out of these five do not comply with the custom of *-aka* words in regard to the form of the root (see § 20). Because of this fact, and because the words *vadhā* &c. occur, while the suffix *aka* was at that time scarcely felt to be in existence, it is better to regard these words as derived from the nouns *vadhā* &c. and containing secondary *ka*. But they represent a transition stage.—There are furthermore certain other *-ka* formations which assisted in the process. Primary *ka* seems to show this meaning; so *pīvaḥ-sphāká* (AV.)

¹ *pavāká*, not *pāvāká*, is demanded by the meter throughout the RV. The word contains no active force, but is simply an adj. meaning "clear, bright." Its exact formation is not certain, though its connexion with *Vpū* is obvious; it is probably a primary derivative, but cannot be classed with 3 *aka*.

"dripping with fat" from *sphā(i)*. See § 28.—And secondary *-ka* forms four or five words with a similar force. The noun *ántaka* (A.V. &c.) has from its first appearance a quasi-active value; it is translated "ender," and is a frequent epithet of death. Closely parallel to *ántaka* are the two words, *çítaka* and *hlādaka* (in the fem. *ikā*) RV. 10. 16. 14 = A.V. 18. 3. 60.—Though they cannot be anything but secondary derivatives from the adjective *çítu* and the noun *hlāda*, they have markedly active meanings: "cooling" and "refreshing," or, as it were, "refreshmenting." Most translators recognize this; that it was so felt by the Hindus from the earliest times is shown by the extremely interesting parallel TĀr. 6. 4. 1, where in the same verse *hlādukā* appears for *hlādikā*. The suffix *uka*, as we shall see (§ 22), is the regular Brāhmaṇa formation for verbal adjectives, like *-aka* of later times. It thus appears that the TĀr. compiler felt the words distinctly as verbal, and, perhaps unconsciously, changed *hlādikā* to look like an *-uka* formation from *Vhlād*. That *çítikā* did not in like manner become **çítukā* is due simply to the fact that no root **çīt* existed, from which such a form could be derived.¹ The word *vīman-yuka* "freeing from anger, allaying wrath" is in like manner an active derivative from *vīmanyu* "free from anger:" cf. suffix *uka*, § 22.

20. The root-syllable must be metrically long before *aka*, and unless it ends in two consonants or in one consonant preceded by a long vowel, it is strengthened,—by Vriddhi of *a*, by Guṇa of other short vowels. A final vowel, long or short, always takes Vriddhi. These rules hold for the Veda without exception,—except that if *kṛttikā* (see General Index) is really a noun of instrument or agent from *Vkṛt* with *aka* (*ikā*), the root in this case doubles its final consonant by way of strengthening, instead of gupating its vowel. There are further exceptions and complications in the Classical language which I shall not go into here. If *dhuvaka* (see § 96) is really a Vedic occurrence, it also is exceptional.

21. The Suffix *uka*.—(1) *Secondary*. There are four words in the Veda which have the appearance of containing a second-

¹ *Yācanaka*, beggar, <*yācana*, request, is another instance of secondary *-ka* with active meaning, forming a sort of noun of agent. But as this word does not occur until Upaniṣad times, it may be due to analogy with the suffix *-aka* (cf. *udbhrāntaka*, § 44 end. Note).

ary suffix *-uka*. But two of these are ἀπαξ λεγόμενα and ought perhaps to be emended: one is analogical, and the fourth is very doubtful. The adjectives *dhārmuka* and *sāmnāhuka* appear, each once, from *dharmā* and *sāmnāha*; they correspond in meaning and in the Vriddhi vowel to the *ika*-adjectives, and perhaps *-ika* should be the reading instead of *-uka*; compare, however, the Classical Skt. words *kārmuka* <*karman*, and *nān-duka* n. pr. apparently <*nanda*.—On *mahīlukā* “female,” <*mahilā* “woman” see § 89; it has its *-u-kā* by analogy from *dhenu-kā*. The only other possible case of secondary *-uka* in the Veda is *kāṇukā* RV. 8. 77. 4, an epithet of soma-vessels which has never been satisfactorily explained. I suggest tentatively a derivation from *kāṇā-* “one-eyed.” Such a figure might easily be suggested by a jug with a small opening and a large bulging body. The vowel *u* is the most serious obstacle to the etymology.

22. (2) *Primary*. The chief use of *uka* is in the formation of the well-known verbal adjectives with participial meaning (and construction, in many cases). The chief sphere of these words is, as has been often observed, the Brāhmaṇa literature. There are very few occurrences in the Saṃhitās; and they are not numerous in the post-Brāhmaṇical literature. Even in the epic, however, the formation continues to show a few feeble signs of life. These may be artificial or learned reminiscences. Ex.:—*vyāyuka*, running away, <*vi-i*, run away.—*ārdhuka*, prospering, <*rdh*, prosper.—*upadāsuka*, failing, <*upa-das*, fail.

In separating Saṃhitā from Brāhmaṇa occurrences, the Black YV. texts present difficulties, in that by intermingling the two they make it impossible to tell from lexical references whether a given passage is Saṃhitā or Brāhmaṇa; while some of the texts are unpublished and hence inaccessible to the ordinary student. However, all the recorded instances of the suffix *-uka* in the published texts of the YV., both White and Black, have been examined, and they have turned out to be all, without exception, in Brāhmaṇa passages. The Saṃhitās, apparently, do not have the suffix. This must be largely accidental, however, since there are several clear cases in the AV.—The few cases in the Sūtras that are known to me are all but one repeated from the Brāhmaṇas. The Chā. Up. has one new instance, and as has been said there are a few in the later language. But the formation practically is born and dies with the Brāhmaṇa period. Of the 71 words, represent-

ing 57 different verbal roots, found in the Veda, 67 are found in the Brāhmaṇas (incl. Āraṇyakas), and most of them nowhere else.

23. That the *uka*-formation is somehow connected with the "present tense formatives" in *u* (i. e. with dissyllabic bases in *u*) is probable antecedently, and is borne out by the fact that some of the earliest instances are formed from such verbs. The only RV. example is *sānukā* < *√san*, present *sanóti*. Here the suffix was probably in reality primary *ka* (q. v.) added to the present stem *sanu-*, and not *uka* at all; cf. *pīvaḥ* -*sphā* -*kā* &c. Another, tho somewhat later appearing, case of the same thing is *ṛdhnuka* (Āçv. Grh.) beside *ārdhuka* (Br.) < *√ṛdh*; *ṛdhnuka* is from the present stem *ṛdhnu*, and has in reality the primary suffix *ka*, though for convenience it is classed with -*uka*. Compare further the secondary formations in which -*ka* adds an active (verbal) force. (§§ 13—19.) Of especial interest here is *vīmanyuka* "allaying anger" from *vīmanyu* "free from anger."—In some words in the early language it is hard to say whether the suffix is secondary -*ka* or primary -*uka*: e. g. *pramāyuka* (AV. &c.) "perishing," < *pra-√mī*, beside *pramāyu* of identical meaning.—From a blend of these various formations arose the suffix *uka*.

24. The root has the same form here as with the suffix *aka*. A final vowel has Vriddhi; a non-final long vowel is unchanged; a non-final short vowel is unchanged except before a single consonant, in which case it takes guṇa (but *a* takes vriddhi). Irregular is the vriddhi in *nirmārguka* (TS.) < *nir-√mrj*; also the short vowel in -*kasuka* (*vī-śum-kasuka*-AV.). It should be further remarked that the present stem may replace the root: cf. *sānukā* and *ṛdhnuka* above; also *nañuka* besides *nāçuka* < *√naç*, pres. stem *nañç*; *vibhinduka* < *vi-√bhīd*.—The root *han* forms *ghātuka* as is to be expected (see Pāṇ 7. 3. 22).

In one instance *uka* seems to show the gerundival use which we have noted in one or two *aka* words, and which also crops out in the suffix -*ka*. This is *an-ālambhukā* (KS: TBr.) < *ā-√lambh*, "not to be touched," of a woman in menstruation. This case seems to be the only one with *uka*.—This turn of meaning, appearing sporadically in different forms of *ka*-suffixes, may have appertained to the primary suffix *ka*, tho signs of it are scanty (see § 28).

25. **The Suffix ūka.**—This is added to *intensive* verb-stems

forming verbal adjectives, like the *uka* words from simple roots. The *ū* has the accent. The suffix seems to have arisen by a sort of proportional analogy to *uka*, but makes its appearance curiously early, one instance being found in RV., and that too from a root which is not addicted to *u*-formations: *jāgarūka* "wakeful," RV. 3. 54. 7. The only other Vedic examples are *dandaçūka* (VS.) and *yāyajūka* (QBr.). The Classical Skt. has one or two more.—*salalūka* RV. 3. 30. 17 was explained by the Hindus as belonging here, as if from *Vsr̥* ("sararūka"); but it is most uncertain and probably of different character; see General Index s. v. It seems to be clearly a noun, probably a *nomen actionis*, and so quite different from this suffix.

26. **The Suffix *īka*.**—This is the most problematic of the derivative *ka*-suffixes. It may never have been felt very definitely as a productive suffix. Many cases included under it are doubtful or entirely uncertain in etymology, and some of them may contain not *īka*, but secondary *ka* added to a lost stem in *ī*. Cf. *āçarika*, *vi-çar-*, from *Vçr̥*, in dissyllabic form *çarī*.

In so far as we can analyze the suffix *īka*, it appears to be primary as a rule, and most often imparts the value of a verbal adjective or noun of agent, like *aka* and *uka*. So *-rjīka*, *dūṣīka* &c. Of like meaning is *dr̥çīkú* "beholder," *Vdr̥ç-*, the only instance of the "suffix *īku*" (see § 29 d).—In two words, *iṣīkā* and *dr̥çīka* "splendid (i. e. to be seen)," the suffix seems to have gerundival force (see § 24).—There are two abstract nouns, *mṛḍīkú* "mercy, favor" < *Vmr̥ḍ* and *dr̥çīka*, *-kú*, appearance, < *Vdr̥ç*.—Three or four *īka* words have the aspect of secondary noun formations from *a*-stems; the *a* is dropt before the suffix. The most plausible example is *kaçīkā* "weasel" < *kāça*. Whether these are really from lost feminines in *ī* cannot be determined.—In some *īka* words the *ī* represents a stem-final *i* or *in* before suffix *-ka*; see §§ 31, 32, 36.

27. **The Adverbial Suffix *-k*.**—In half-a-dozen very ancient adverbs there appears a suffix *-k*, added to vocalic stems of nouns or adjectives, apparently merely as an adverb-forming affix. It is probably a petrified form of the adjectival suffix *-ka*, in its first and original sense (1 *ka*).¹ I find no proof of

¹ It is, however, possible that this group of words really contains a form of the suffix *añçac*. The main objection to regarding them in this

the existence here of any developed meaning of *ka*, such as the diminutive. The words are: *řdhak* or *řdhāk* "separately" < base **řdha*, cf. *ardhā*; *nīñik* "secretly" < *nīnyā*, cf. § 29 a; *pr̥thak* "in a scattered manner," cf. *pr̥thū*, *pr̥thā* "palm of the hand;" *prabāhuk* "on an even line" < *prabāhu*; *viṣuñāk* "in various directions" (with possibly a suggestion of imprecatory-diminutive value, see s. v. *sānaka*, Chap. IV, § 80); < *viṣuṇa*; *vīthak* "lightly" &c. < base *vṛtha*, whence the (instrum.) adv. *vīthā* (= *vīthak*).—*manāk* probably does not contain this suffix, but a form of the root-suffix *añc*, like *prātika* &c. *Manānāk*, supposed by some to be from *manāk*, cannot possibly be so explained either formally or semantically (see Ludwig on RV. 10. 61. 6). Ludwig would derive it from *manu* in some way, but neither this nor any other explanation so far offered is satisfactory. The word looks as if it contained some form of the root *anaç: naç* (ἄνεγκον). But it is still too dubious in etymology and meaning to permit any safe conjecture as to the suffix. Could *manānā* be connected?

28. **The Primary Suffix *ka*.**—The words which are thrown together under this head are so varied in meaning, and in many cases so problematic in etymology, that I despair of giving any intelligible or intelligent classification of them. There seems to be a group of them containing more or less suggestion of that verbal adjective idea which we have found in the suffixes *aka*, *uka*, and *ika*, as well as in secondary *ka* (4 *ka*, § 13). This is clearly present in *pīvaḥ-sphākā* < *√sphāi* (4 *ka*, § 13). This is clearly present in *pīvaḥ-sphākā* < *√sphāi* and a few others; perhaps in *stokā* < *√stu* in *ghṛta-stīvas* (AV.); *mūka* < *μύω*, *mū-tus*; *pāka* < *√pā* ("suckling?"), *jāhakā* "hedgehog," apparently < *√hā* and others.—Whether in *sumēka* < *√mī* "well-established" we have a gerundival use (see § 24) is not certain. Words like *glōka* and *çūška* (Av. *huška*) are perfectly clear in their etymological belongings, but do not fit in very well as to semantics with other words of this class. Some of the words are hopelessly obscure and may not contain a suffixal *ka*.—I shall give the list (§ 103) in alphabetical order, not attempting to classify the words semantically.

light is the short quantity of the vowel before *-k*; the suffix *-ac* in combination with a vocalic stem regularly produces a long vowel + *k*.

Chapter II.

Saṁdhi.

The Saṁdhi of stem-finals before the *ka*-suffixes.

A. The Saṁdhi of Secondary -ka. §§ 29—37.

29. *ā*. Before secondary *ka* the stem-final *ā* regularly remains unchanged. But:

a) Final -*ya* of a stem appears to be reduced to -*i* before *ka* in a few cases. *pārṣṭhika* (*Kāty. Gr., Lāṭy.*) < *prṣṭhyā*.—*bhāṣika* (*Kāty. Gr., Ṣāṅkh. Gr.*) prob. < *bhāṣya*.—*maṅgalikā* (AV.). best derived < *maṅgalya*.—*niṇik* (adv.) (RV.) < *niṇyā*.

Note.—In *usrikā* (RV.) < *usrā* the *i* is due to analogy from *usriya*. It would be impossible to regard the suffix as -*ika*, since the word is obviously a contemptuous dim., and *ika* is never used in that sense, at least in the Veda.—Similarly the *Bahuvrīhis* -*varṣika*, -*ṣṭīka*, -*cārika*, -*saṁnyāsika*, all from stems in *a*, are influenced in their vocalism by the parallel and equivalent words in -*varṣin* &c.

b) In one instance final *a* seems to be dropt entirely: *ṣālka* < *ṣalā*. It is possible that *ṣālka* may be really a primary derivative from the (hypothetical) root of *ṣal-ā*. In this connection it should, however, be mentioned that the lexicographers quote a word *kiṇjala*—not yet found in the literature—with the same meaning as *kiṇjalka*—"plant-stalk": and cf. further AV. *nāmadka*, from and = *nāmata*.

c) In some cases *ā* seems to be substituted for *ā* before *ka*. The words are all more or less problematical, and some of them are entirely obscure. Those which seem most plain are: *ekākīn* (*éka, ekakū*); *chattrāka* (*chattra*); *taṭāka* (*taṭa*); *nabhāka* n. pr. (*nabha*?); *paṭākā* cf. *Vpaṭ* (primary?); *ṣalākā* (*ṣalā*); *pracalākā* (*pracala*).—Very dubious are *ṛkṣāka* (*ṛkṣa*?); *pin-yāka* (?); *pīnāka* (*πίνᾱξ*, OSlav. *pinī*); *sāūrūki* (patron.; from **surāka*?).

These words, or some of them, may be derived from lost stems in *ā*. Yet the appearance of *ekākīn* is not encouraging to this theory; for although the fem. *ekā* exists, there is nothing about *ekākīn* to suggest a derivation from it. Furthermore we should expect the derivatives to be fem. on such a supposition, whereas these words are nearly all masc. or neut. Metrical considerations may have affected some of them. See also § 30 a.

Note.—*gyāmāka* has a justifiable *ā*; see § 30 a. Note 1.

d) Here belong also one or two words in -*āku*: *pīdāku* < **pīda-* cf. *πίπδος* (loanword); *mṛdayāku* < *mṛdaya* (metrical?).—

kṛyāku "mushroom" is of unknown etymology. (The pronominal word *yuvāku* is from the base *yuvā*, and the n. pr. *īkṣvāku* [or *-kū*] seems to be derived from *īkṣú*, though this cannot be regarded as certain. The only other Vedic word in *ku* is *dr̥çikū*, see Chap. I, § 26.)

30. *ā*. The stem-final *ā* before *ka* either a) remains unchanged, b) is reduced to *ā̃*, or c) is changed to *i* in fem. words in accordance with the powerful tendency of *i* to usurp the place of all other vowels before fem. forms of the suffix *ka* (cf. § 7).—Naturally, most of these *ā*-stems are fem.; and the *ka*-derivative generally follows the primitive word in gender.

a) *ā* remains *ā* before *ka*.—*vīṇākā* (ifc.) = *vīṇā*: *kanyākā* < *kanyā*; *jyākā* < *jyā*; *rasnākā* < *rasnā*; **vayāka* (in *vayākin*) < *vayā*(?); *māinākā* metronymic < *mēnā*; in Bāhuvrīhi cpds., *-vapāka*, *-saṁkhyāka*.—More problematic, but still probably belonging here, are *balākā*, *rodākā*, *ropaṇākā*, *çāriçākā*, *-pr̥ṇākā*, from lost primitives.

Note 1.—*çyāmāka* (VS.) "millet" may be derived directly from the noun *çyāmā* (only Class. Skt.) "a kind of grain," or from *çyāmā* used in a vaguer way as the fem. base of the adj. *çyāmā-ā̃*; this fem. base is frequently found in composition.

Note 2.—Pronominal words in *āka* (*āku*) are to be regarded as formed from bases in *ā*; only the *ka* (*ku*) is suffixal. See Wh. Gr. 494; Thumb 357; Brugmann Gr. II¹ p. 830. The existence of these pronominal bases in long vowels is unquestionable; they appear frequently in derivatives and in composition as the "stems" of the pronouns. The exact meaning of the long vowel is problematic and need not concern us here. In the Veda we find *mākī*, *mākīna*, *asmāka*, *yusmāka*, *yuvāku* from the bases *mā*, *asmā*, *yusmā*, *yuvā*. On *mākī* see General Index s. v.

b) *ā* > *ā̃* before *ka*. Especially in Bāhuvrīhis; *-ambaka* < *ambā*; *-āikhyaka* < *āikhyā*; *-saṁkhyaka* < *saṁkhyā* (cf. *saṁkhyāka* above); *-saṁjñaka* < *saṁjñā*.—Also: *tārakā* < *tārā*; *cikitsakā* < *cikitsā*; *mānasthaka* (? perhaps from a cpd. of *Vsthā*); *menakā*—metron. < *mēnā* (cf. *māinākā* above); *çilaka* n. pr., perhaps < *çilā*.

c) *ā* + *ka* > *ikā*. I know of only three clear examples in the Veda: *akṣamālīkā* (Up.) < *akṣamālā*; *nāsikā* (RV.) < *nāsā*; *mākṣikā* (RV.) < *mākṣā*. These RV. words show how early began the encroachment of *ikā* on all other fem. forms of the suffix *ka*.—Most *ikā* feminine words are formed directly from *aka* masculines.

Note.—*mahīlukā* < *mahīlā* has its *u-kā* by analogy from *dhénukā*; see Chap. IV, § 89.

31. *ī*. Regularly remains unchanged before *ka*. In a few doubtful cases it seems to be lengthened to *ī*, but this is probably only apparent. So the crucial word *kalmalīkin* (RV.), < *kalmalī*?; *puṇḍārika* cf. *puṇḍari-srajā*, but cf. also *puṇḍarin* (only Lex.).—*pūtika* (once also *-ika*) apparently < *pūti* (adj.). *-valika* probably < *valī*, not *vali*.

32. *ī*. a) In Bahuvrīhis *ī* remains before *ka* invariably. *-tantrika*, *-patnika*, *-samidhenika*, *-sāvitrika*.

b) In other derivatives it either remains, or (more often) is reduced to *ī*. Especially when the *ka* derivative is fem. the *ī* is usually reduced, so that the word ends in *-ikā*; cf. § 7.

ī remains: *āṇḍika* < *āṇḍī*; *tūṣṇika* < *tūṣṇī*; *nāḍikā*; *lohinīkā*; *valika* (see § 31); *hlīka* < **hlī* = *hrī*; *dūṣikā* (also *-ikā*) < *dūṣī*; *valmika* cf. *vamrī*, Lat. *formica*; *sūcika*.

ī > *i*: *kuçikā* prob. < *kuçī*; *gavīnikā* < *gavīnī*; *gopikā*; *mahā-nāmnika*; *avaghatarikā*; *avacarantikā*; *karkarikā* < *karkarī*; *dhayanīkā*; *dūṣikā* (cf. *dūṣikā*); *praticikā*; *mukharikā* < *mukharī*(?); *vajrasūcika*; *hāvīnikā*.

NB.—*dyumnika* and *varṣika* are from *-in* stems, q. v.

33. *ū*. Remains unchanged before *ka* regularly.

a) Here as with *ā* and *ī* there are a few cases in which *ū* seems to be lengthened. Word or sentence cadence may be the cause of this. *Kambūka* (AV.) "rice husk" < *kambu* "shell." *mādhūka* n.pr., apparently < *mādhū*.—*çālūka* (AV.) a plant, cf. *çālu* (Class.) a fruit.—*ābhūka* "powerless" < *ābhū* "empty."—*ūlūka* "owl," onomatopoeic, cf. *ulūcus*, *ulūla* (see § 79, s. v. *ūlūka*).—*karkandhūkā* (AV.) should be read *karkandhūkā*, as the parallel RV. Kh. stauza reads.

b) The word *mādhvaka* (Adbh. Br.) "bee" is probably an instance of some sort of adaptation, whose nature cannot be decided. At first sight it looks like a suffixal *-aka* added to *mādhū*; but this is most unlikely.

c) *ikṣvāku* n.pr. may be derived from *ikṣū* + *āku*; see under § 29 d.

34. *ū*. This would doubtless remain unchanged before *ka*, but I know of no clear instance in the Veda. The following words are doubtful as to etymology: *ānuṣūkū*, *bṛbūka*, *maṇḍūka*, *valūka*, *salalūka*.

35. *ṛ*. Remains unchanged before *ka*. *māṛka*, *hōṛka*: in Bahuvrīhis. *-pīṛka*, *-yanṛka*.

a) *pradātṛikā* "giver" (fem.) < *pradātṛ* shows the fem. suffix

ikā (see §§ 7, 38), not to be confounded with the suffix *-ika*: before it *r* appears in its consonantal form.

36. *Consonants.* Consonantal stems before *-ka* appear in their weakest stem-form. The ordinary rules of internal combination are generally observed. But the sibilants *ç* and *ṣ* appear in the form found in composition, and some *s*-stems are irregular.

an-stems: *tāmaka*, *udaká*, *-carmaka*, *-nāmaka* &c.

in-stems: *-sākṣika* (in Bahuvrīhi cpd.) < *sākṣin* and *-hastika* < *hastin* are the only Vedic instances found which shows the *i* we should expect. *dyumnika* < *dyumnin* and *varṣika* < *varṣin* have taken over *i* from the nom. sg. masc. of the *in*-declension.—On *-varṣika*, *-çīlika*, *-cārika*, *-saṁnyāsika* see § 29 a, Note: they probably come from stems in *-a*, but are influenced by *in*-stems.

nt-stems: *-bṛhatka*, *ejatká*, *-datka* &c.

t-stems: *napātka*, *pratiçrútkā* (noun) and *prātiçrutká* (adj.) < *pratiçrut*; *-pariçritka* (Bah.).

iyattaká (*-ikā*) < *iyat* and *mṛttikā* = *mṛd* are peculiar. The insertion of the glidial vowel *a* (*i*) seems to have been merely euphonic. No significance is to be attached to it, and probably not to the doubling of the *t* either (this latter is only a matter of word cadence); *iyattaká* is a dim. from *iyat*, and it is scarcely conceivable that the suffix is anything else than plain *ka*, tho in a disguised form; cf. Av. *daitika* < *dat* (§ 108). Why the *t* of the nom. sg. should appear in *mṛttikā* instead of the *d* of the stem *mṛd*, I cannot say; but to set up a suffix *-taka/-tikā* goes too much against probabilities. It is hard to imagine an analogical process by which such a suffix could have arisen in these words, and the instances are too few to make such an assumption safe. Cf. *kṛttikā* < *√kṛt* under primary *-aka*.

d-stems: (Bahuvrīhis) *-upanīṣatka*, *-nīvítka*, *-parīṣatka*, *-samvítka*. For *mṛttikā* < *mṛd* see under *t*-stems.

dh-stems: *-samítka* < *samidh*, *upānatka* < *upānah* (orig. *-nadh*).

c-stems: *-tvakka*, *-vākka*, *purorukka*.

ṣ-stems: (see above) *ṣatka* < *ṣaṣ* (only known Vedic instance).

ç-stems: *-dikka* < *diç* (only known Vedic instance).

s-stems: appear regularly with *s* after *a*, *ṣ* after *i*, *u*; *anīyaská*, *-tapaska*, *-tejaska*, *medaska*, *-rajaska*, *-retaska*; *mastīṣka* (? No **mastis* occurs); *catuṣka*, *dhanuṣka*, *cakṣuṣka*, *-yajuṣka*.

a) *-āçīrka* (Bahuvrīhis) < *āçís* is due to analogy with cpds. in which *s* was followed by a sonant, as *āçīrdā* &c.

b) *parutka* < *pārus* is due to analogy with stems in *ṣ*, which take *ṭ* before *ka*. The proportion is $\dot{\text{ṣ}} : s = \dot{\text{ṭ}} : \text{ṭ}$.—Cf. also *pūrucchepa*.

37. *Stereotyped Endings*.—When *ka* is added to a word having a stereotyped ending, or an ending which does not vary according to a nominal declension, the word is always treated as if it were formed from a noun stem in *-a*, whether it is so or not: the *ka* is added to this (often imaginary) *a*-stem, and then the ending of the original word is attached to the *ka*-derivative, the *-a* of the suffix of course disappearing. This gives the word the appearance of being formed with an infix *-ak-*.

So in the case of adverbs like *ārakāt* < *ārāt*, *ūlakam* < *ūlam*, *çanakāis* < *çanāis*, in which the original base actually was *āra-*, *çana-*, *ala-*.

But also: *asakūū*¹ < *asāū*, as if the stem were *asa-* and the ending *-āū*; and the extraordinary verb-form *yāmaki* < *yāmi*, as if *yāmi* were a nominal form from a stem *yāma-*.

B. Saṁdhi of the Secondary Suffixes *ika*, *uka*, *īka*, and the fem. *ikā*.

38. In the Veda these do not appear after *ā*-stems. A final stem vowel disappears before them without trace, except *ṛ*, which becomes consonantal *ṛ*. Consonantal stems before them appear in their weakest *pre-vocalic* stem form; e. g. *çāçvatika* < *çāçvant*; *paramavyomnika* < *-vyoman*; *āparāhnika* < *-ahan*, and so other compounds of *ahan*. Apparent exceptions like fem. *tādātmikā* come as a rule from masculines in *a-ka* (suffix *ka*), or are derived from parallel bases in *-a* (as *ṣāḍahika* < *ṣaḍahá*, not *-ahan*).—In the classical language, however, this rule no longer holds; particularly *an*-stems take the form in *-a* before *-ika* (the *a* dropping). In the Veda *sāman* and its compounds follow this habit: *sāmika* (*Lāṭy.*), *jyāiṣṭhasāmika* < *jyēṣṭhasāman* &c.

39. The *primary* suffixes require no remarks under this heading; the treatment of verbal bases before them, in so far as it is capable of discussion, has been taken up under the respective suffixes.

¹ The grammarians allow *asuka* as well *asakūū* < *asāū*, but it has not been reported as occurring in the literature.

Chapter III.

The Secondary Suffix *ka* (excl. diminutives).

The Suffix १ *ka* (excl. diminutives) §§ 40—48. Meanings see Chap. I, § 9. (About 110 words.)

40. a) Forms nouns from nouns; meaning “like.”

antakā, border (CB.), < *anta*, end.

kambūka (AV.), husk of rice, < *kambu*, shell (see § 33).

kīlaka (U.), the middle part of a mantra, < *kīla*, post.

kumbhaka (U.), the holding of the breath after filling the passages with air—a religious exercise; the appearance of the performer suggested a pot, hence the name. < *kumbhā* pot. See § 95.

kūṣṭhikā (AV.), dew-claw, < *kūṣṭha* (cf. also § 90, 91).

cūlaka (U.), the top of a column, < *cūla*, crest.

chattrāka (B.), mushroom, < *chattra*, shade, umbrella (see § 30) (Class. *chattraka* = mushroom).

naḍaka (S.), hollow of a bone, < *naḍā*, reed.

nāḍīkā (AV.), throat, < *nāḍī*, tube.

nābhikā (B.), navel-like cavity, < *nābhi*, navel.

bhāṣika (S.), general rule, < *bhāṣya*, speech, commentary (see § 29 a).

maṇika (B.), hump, water-jar, < *maṇi*, pearl, lump &c.

valīka (S.), thatch; reed, sedge, < *valī*, fold, or *vali*, edge of a roof.

41. b) The signification of the *ka*-derivative is often so like that of its primitive that it is hard or impossible to distinguish any difference between them, so that the *ka* seems to be meaningless. The Hindu grammarians recognize as a distinct category this “meaningless *ka*” (*anartha*). Sometimes, however, the exigencies of meter explain the addition of *ka*. So:

āstaka (AV), home, = *āsta*.

gavīnikā (AV.), groins, = *gavīnī*.

(The same pada repeated in TS. has *gavīnī*.)

iṣukā (AV.), arrow, = *iṣu*.

pīyūṣaka (RVKh.), biestings, = *pīyūṣa*.

(The same pada in AV. has *pīyūṣa*, but is deficient in meter.)

42. c) Sometimes, again, the suffix is used as a convenient means of bringing into the ordinary *a*-declension words of less usual stem-formations (mostly consonantal stems). This may explain the following (and cf. I, 12);

āmīvatkā (YV.), pressing, = *āmīvat* (pres. part.). See Gen. Index; cf. *vikṣīnatkā*, *vicīnvatkā*.

udakā (RV.), water, = *udān*. The stem *udakā* was at first used, apparently, only in the nom. acc. sg. *udakām* to replace the form **uda* < *udān*, which never occurs. The form *udakām* is found 8 times in RV. and 17 times in AV., while the oblique cases occur only once in RV. and 6 times in AV. The oblique cases of *udān* on the other hand occur 19 times in RV. and 4 times in AV.; its nom.-acc. is not found. As the oblique cases of *udakā* increase in frequency the stem *udān* becomes correspondingly rare.

pratiçrútkā (VS.), Echo, = *pratiçrut*.

bṛhatka (B.), n. p., < *bṛhāt*, adj. (But cf. also § 46).

vikṣīnatkā and (inferior) *vikṣīnakā* (YV.), destroying, epithet of gods. = *vikṣīnant*; see General Index.

vicīnvatkā (YV.), sifting, discriminating, epithet of gods; see General Index. and cf. preceding and *āmīvatkā*.

stúkā? (RV.), tuft of hair; prob. not "primary *ka*" (Whitney), but rather from the noun *stu* in *pṛthú-ṣtu*.

43. d) But in many cases there seems to be no evident reason for the appearance of *ka*.—It may be that one or another of the words which are grouped under this heading will seem to sharper senses than mine to show some differentiation between the primary word and the *ka*-derivative. It is morally certain that some of them would have presented differences to an ancient Hindu. It is possible that some of them are diminutives of some sort, tho I have sought in vain for some sign of this in the various passages. However that may be, of the general fact there can be no doubt; from very early times the suffix *ka* became in some cases so colorless that it might be added without change of meaning to nouns, and even to adjectives. This usage increases greatly in frequency in the later language. Even if, then, a few of the examples quoted prove to be wrong, the principle is undoubtedly right.—Note that the usage is rarest in the Mantras and commonest in the Upaniṣads.

44. Nouns:

avadhūtaka (U.) n. of an Upaniṣad = *avadhūta*

ātmabodhaka (U.) n. of an Upaniṣad = *ātmabodha*

urvārukā (RV.) in a late and interpolated verse, a sort of gourd.
= *urvārú*

- kāntaka* (AV.), thorn = *kaṇṭa* (only in cpds.)
karkaṭaka (U.), crab = *karkaṭa*
karnaṇṣṭaka (S.), earring = *karnaṇṣṭa*
kiṇṇjalka (S.), plant-stalk = *kiṇṇjala* (only Lexx.) see § 29 b.
kramuka (B.), betel-nut tree = *kramu* (only Lexx.) (also
kṛmuka)
gavīdhuka or *gavé-* (TS.), coix barbata = *gavīdhu* (*gavedhu*)
(not Vedic)
gopikā (U.), protectress = *gopī*
cakraka (U.), wheel = *cakrá*
jarāyuka (B.), after-birth = *jarāyu*
jīvikā (S.U.), manner of life, cf. *jīvā*, life (Possibly primary *-aka*;
cf. § 95)
tārakā (AV.), star = *tārā*
nikharvaka (B.), billion = *nikharva*
parūṣaka (S.), n. of a tree, and its fruit = *parūṣa*
pracitaka (S.), n. of a meter = *pracita*
bhāradvājākī (B.), skylark = *bharadvājī* (f. of *-ja*)
bhikṣuka (S.) mendicant = *bhikṣu*
maṇipūraka (U.), n. of a mystic circle on the navel. = *maṇi-*
pūra
mṛttikā (VS.), clay = *mṛd* (see § 36)
yaṣṭikā (U.), club = *yaṣṭī*
rūpaka (B., U.), image; species = *rūpā*
lokapālaka (U.), earth-protector = *lokapālā*
varāhaka (U.), n. of an Upaniṣad = *varāhā*
vahyaka (S.), draft-animal = *vahyā*
vārdhhuṣika (S.), usurer = *vārdhhuṣi*
vikalpaka (U.), hesitation = *vikalpa*
-vīṇākā (S.), flute = *vīṇā*
vyādhaka (S.), hunter = *vyādhā*
ḥyāmāka (YV.), millet, = *ḥyāmā* (? cf. § 29 c, Note)
saṃtanika (B.), n. of a Sāman, = *saṃtani*.

Note.—*ajāvikā*, neut. sg., “goats and sheep,” is the equivalent of the (masc. plur.) dvandva *ajāvi*. The *-ka* seems to have a sort of collective force, not exactly paralleled elsewhere.

45. *Adjectives:*

- āgantuka* (S.), accidental, = *āgantu*
āvapantikā (AV.), pres. part., scattering, = *āvapantī*. (Note in Whitney's edition seems to imply dim.—i. e. pejorative—force, like *avacarantikā* &c. But as it is applied to the

bride scattering grains in the marriage ceremony, this is hardly conceivable. In the AV. passage the *-kā* might be metrical, but not in the GrS., where it is also used [unless they depend directly on the AV. passage; note that some parallel passages, as MantrBr., read *āvapantī*]. Might this be a case of the "feminine" Diminutive—§ 90?)

ūrdhvaka (U.), raised. = *ūrdhvā*

kṛtsnaka (S.), all, = *kṛtsnā*

caturthaka (U.), fourth = *caturthā*

tūṣṇika(m) (S.), silent(ly), = *tūṣṇī(m)*. Doubtful and prob. corrupt.

mṛdayāku (RV.), or *mṛḥ*-merciful, = *mṛdaya*, cf. § 29 d.

svaka (U.), own, = *svā*

Note.—The word *plāṅka* (B., S.), rapidly growing up. < **pla* = *pra* + *ācū*, takes *ka* because of its quasiparticipial meaning, being influenced by the suffix *-uka*. Similarly *udbhrāntaka* (U.), roaming, = *udbhrānta*, from the analogy of words in primary *aka*, several of which are found in close proximity to the word *udbhrāntaka* in Nṛsut. Up. 7.

46. e) Often the suffix forms substantives, from adjectives or other words, with the meaning "characterized by" (such a quality or thing). When the primitive word is an adjective the derivative is frequently no more than a substantivized adjective. As such it is particularly adapted to the formation of proper names.

Substantive from adjective:

abhiniviṣṭaka (S.), ? (acc. to Knauer) stale (of food); < p. pp. of *abhi-ni-ṣṭ*.

invakā (SV., B.), n. pr. of a Sāman, < *inva*, pervading.

iṣṭakā (YV.), brick, < **iṣṭā*, burnt, IE. *Vaidh* burn. Cf. Av. *iṣṭya*.

kunika (S.), n. of a man, < *kunī*, adj., having a withered arm.

ghātaka (S.), n. of a kind of wood, < *ghāta*, smitten.

cāraka (B.), wanderer, < *cara*, wandering.

jayantaka (U.), n. of a man, < *jayanta*, victorious.

taṭāka (B.), pool, < *taṭa*, declivity, bank.

dyumnika, n. of a man, *dyummin*, glorious.

nyastikā (AV.), epithet of a plant, < *nyastā*, thrown down. (§ 91.)

pūtika (TS.) or *-ika*, n. of a plant, < *pūti*, foul (see § 31).

pr̥thuka (B.), flattened grain, < *pr̥thū*, flat.

perukā (RV.), n. of a man, < *perū*, delivering.

pracalāka (S.), chameleon } < *pracala*, mowing &c.
pracalākā (TS.), cloudburst }

prasarpaka (S.), assistant or spectator at sacrifice, < *prasarpa*, adj. *madhyamikā* (U.), middle finger, < *madhyamā* (cf. § 90).

mundaka (U.), n. of an Upaniṣad, < *munḍa*, shorn.

rohītaka (MS.), n. of a tree, < *rōhita*, red (in Class. Skt. also applied to the tree *rohītaka*).

vādhaka (AV.), n. of a wood, < *vadhā*, smiting &c.

varaka (S.), suitor, < *varā*, desiring (also n., suitor).

varsika (S.), n. of a meter, < *varṣin*, raining.

viçvaka (RV.), n. of a man, < *viçva*.

çamakā (S.), n. of a plant, perhaps < *çama*?

snātaka (B.), one who has ceremonially bathed, a *gṛhastha*, < *snātā*.

Substantive from noun (which must have been felt adjectivally):

cēlaka (B.), n. of a man, perhaps < *cēla*.

daṇḍaka (S., U.), n. of certain meters, < *daṇḍā*.

vamrakā (RV.), n. p., "Antman", < *vamrā*, ant. Called dim. by Nāigh., followed by BR., but this seems very unlikely. It is rather a noun of characteristic.

vṛṣaka (SV., B.), n. of certain sāmans, < *vṛṣan*.

saṃpātika (S.), n. of certain demons, < *saṃpāti*.

Miscellaneous:

tiraçcikā (S.), a horizontal region, < *tiraçci*, loc. sg. of *tiryañc*.

47. f) The suffix furthermore forms adjectives of characteristic, mainly from adjectives, adverbs and numerals.

ādika (S., U.), additional < *ādhi*.

ānuka (B.), subordinate < *ānu*.

antikā (RV.), near < *ānti*.

āvakā (AV.) (subst.) n. of a plant < *āvā*.

ekākīn (AV.), solitary, < *ēka*.

viçvaka (U.), all-pervading, < *viçva*.

sām-samaka (AV.), united, < *samā*.

From numerals, forming adjectives with a sort of distributive force: *ekakā*, singly; *dvakā*, by twos; *trikā*, by threes— all RV.

One adjective of material (others in Classical Skt.): *sidhraka* (S.), made of *sidhra*-wood.

48. g) Presumably growing out of the usage described in § 46, we find a few rare and abortive appearances of the suffix in formation of abstract nouns, with the force of the English suffixes -ness or -hood. The few Vedic cases are:

madhūlaka (AV.), sweetness (or, honey) < *madhūla*. sweet.

mātṛka (U.), "das Mutterwesen" < *mātṛ*.

lohinīkā (B.), red glow < *lōhinī*, fem. of *lōhita*.

sūtaka (S.), birth, childbirth < *sūta*.

Note.—Logically the treatment of the Diminutive *ka* should follow here, it being a phase of the suffix *ika*. But for practical reasons, because of its importance and the space it requires, it has seemed best to devote a separate chapter to it.

The Suffix 2 ka. §§ 49—52 incl. Meanings see § 11. (53 words.)

49. Here no additional remarks or semantic distinctions are necessary, and we need only give the words, practically all of which are adjectives, as they occur. The words which have Vriddhi are: (21 words)

āpartuka (S.) < *apartū*

āmalaka (U.) < *amala*

āraṇyaka (U.) < *āraṇya*

āruṇaketuka (TĀr.) < *aruṇa* + *ketu*

āiḍakā (B.) < *eiḍa*

kāverakā (AV.) < *kāvera* (patronymic)

cāturhotṛkā (MS.) < *cāturhotṛ*

tādātmaika, *ikā* (U.) < *tad-ātman*

tāvakā (RV.) < *tāva*. gen. sg. of *tvam*

¹*pārṣṭhika* (S.) < *prṣṭhyā*. cf. § 29 a.

pāçuka (S.) < *pāçu* or *paçū*

pāçubandhaka (S.) < *paçubandhā*

prātiçrutkā (U.) < *pratiçrut*

bhāumaka (B.) < *bhūman*

mānuṣyaka (U.) < *manuṣyā*

māmakā (RV.) < *māma*. cf.

tāvakā

mājinākā (TĀr.) < *mēnā* (metronymic)

rāivataka (U.) < *revata* (patronymic)

vāibhītaka (TS.) < *vibhīta* (kt?)

çārīraka (U.) < *çirīra*

sāṁsparçaka (S.) < *sāṁsparçā*.

50. Those which may or may not be considered as having Vriddhi: (10 words)

ātmaka (U.) < *ātmān*

āitareyaka (B.) < *āitareya*

tāluka (U.) < *tālu*

tāittirīyaka (U.) < *tāittirīya*

trāiṇīdyaka (S.) < *trāiṇīdyā*

-dhāvanaka (S.) < *dhāvana*

bādhaka (B.) < *bādhā*?

(*māki*, *mākina*) < *mā*—see § 30 a,

Note.

vājasaneyaka (S., U.) < *vājasaneyā*

çātyāyanaka (S.) < *çātyāyana*

¹ *Note*.—This must be admitted to be not a *certain* case of the suffix *ka*, as against *ika*. Nevertheless it is hardly likely that the entire syllable *-ya* would disappear before *-ika* without any trace;—at least I know of no parallel for such a phonetic change, whereas § 29 shows parallels for the reduction of *-ya* to *i* before *ka*.

51. The words which fail to show Vriddhi (19 words):

<i>agnihotraka</i> (U.) < <i>agnihotra</i> .	<i>mámaka</i> (RV.) < <i>māma</i> , cf. <i>mā-</i>
<i>asmāka</i> (RV.) < <i>asmā-</i> see § 30a	<i>maká</i> § 49.
Note.	<i>markaṭaka</i> (S.) < <i>markáṭa</i> .
<i>gāṇaka</i> (VS.) < <i>gaṇá</i> .	<i>menakā</i> (B.) < <i>ménā</i> , metro-
<i>cikitsaká</i> (B.) < <i>cikitsā</i> .	nymic; cf. <i>māināká</i> .
<i>tr̥tīyaka</i> (AV.) < <i>tr̥tīya</i> (as	<i>yantraka</i> (B.) < <i>yantrá</i> .
noun).	<i>yuváku</i> (RV.) < <i>yuvā-</i> see § 30a
<i>dévaka</i> (U.) < <i>devá</i> .	Note.
<i>nápātka</i> (RV.) < <i>napāt</i> .	<i>yušmāka</i> (RV.) < <i>yušmā-</i> see
<i>madhūka</i> (S.) < <i>múdhū</i> .	§ 30a Note.
<i>madhvaka</i> (B.) < * <i>madhva</i> ? see	<i>sūtikā</i> (AV.) < <i>sūti</i> (cf. <i>pra-</i>
§ 33 b.	<i>sūtikā</i> , Cl., and <i>prasūta</i> , AV.).
<i>mantraka</i> , <i>ikā</i> (U.) < <i>mántra</i> .	<i>svastika</i> (U.) < <i>svasti</i> .
	<i>hotraka</i> (B.) < <i>hotrá</i> .

52. A few un-vriddhied words from bases in *ī*, where it is impossible to say whether the suffix is *ka* or *ika*. The overwhelming preponderance of Vriddhi with *ika* has led me to classify them here, while vriddhied words from *i*-stems are for the same reason put under *-ika*. (3 words):

<i>kuçiká</i> (RV.) prob. < <i>kuçí</i> .
<i>bálhika</i> (AV.) < <i>bálhi</i> .
<i>mahānāmnika</i> (S.) < <i>mahānāmnī</i> .

The Suffix 3 ka. §§ 53—55.—Meaning see § 12.

53. This category consists mainly of adjectives (which, however, are frequently substantivized), like the foregoing. It is on the whole not frequent in the Veda, except in the developed use with Bahuvrīhis.—Especially to be noted is the use of the suffix with numerals, in the sense “consisting of,” “containing.”

Parenthetically it may be noted that the suffix *-ika* has the value of 3 *ka* in two AV. words: *tūṇḍika*, having a snout or trunk, < *tūṇḍa*; and *paryāyiká*, having (i. e. composed in) strophes, < *paryāya*. This seems to be the extent of the usage.

The following words show *ka* in its third use (21 words):

(From numerals:) (8 words.)	
<i>āṣṭaka</i> (B.)	<i>pañcaka</i> (S.)
<i>ekatriṇṇaka</i> (U.)	<i>pañcaviṇṇaka</i> (U.)
<i>catuṣka</i> (S., U.)	<i>ṣaṭka</i> (S.)
<i>daṣaka</i> (S.)	<i>ṣaḍviṇṇaka</i> (U.)

(From other words:) (13 words.)

ariṣṭaka (S.), having the disease *áriṣṭa*

āṇḍika (AV.), having egg (—like bulbs) < *āṇḍi*

janaká (B.), n. of a king < *jána*?

dāyaka (S.), heir. < *dāyá*, inheritance

dvārakā (U.), n. of a city, “City of Gates” < *dvāra*

nimuṣṭika (Āit.Ār.), of the size of the fist, < *nimuṣṭi*, a measure of that size

parutku (S.), having joints < *pārus* (see § 37 fin.)

mādhuka (B.), n. of a man (“rich in honey”) < *mādhu*

muktikā (U.), n. of an Upan., “String of Pearls” < *muktā*

muṣṭikā (U.), n. of a prizefighter < *muṣṭi*, fist

vasnikā (B.), prize (“having value”) < *vasnā*, value

ṣālyaka (VS.) porcupine (“having darts”) < *ṣālyá*, dart

hlīka (KS.) possess of modesty < **hlī* = *hrī*

54. *Bahuvrīhis*.—Very scarce in the Mantras (2 in RV.: 5 in RV.—AV. together): they become not infrequent in the Brāhmaṇas, but can hardly be called common until the Sūtra-Upaniṣad time. There are 42 words found in the Mantras-Brāhmaṇas together, and 54 which occur for the first time in the Sūtras and Upaniṣads, making 96 for the entire Veda. In the later language the cases are numerous.—That non-*a* stems predominate as primitives (cf. § 12) is shown by the statistics: of 96 words, 37 are from consonantal stems, 37 from stems in other vowels than *ā*, and only 22 from *a*-stems.

For Sandhi of stem-finals see Chap. II.—The most striking facts are that *ī* always remains unchanged, while *ā* may do so, but more often is shortened before *ka*.—Four stems in *a* change *a* to *i* before *ka*, through the influence of parallel *-in* stems of like meaning. They are *-cārika* < *cāra*, cf. *cārin*; *-varṣika* < *varṣá*, cf. *varṣin*; *-ṣūhika* < *ṣūha*, cf. *ṣūhin*; *-saṁnyāsika* < *saṁnyāsa*, cf. *saṁnyāsin*.

a) The heteroclite stems *akṣi* (*akṣan*) and *asthi* (*asthan*) use either form of the stem before *-ka*, as also (in the Veda) before the pada case-endings (Wh. 431). The same verse in different parts of the Vedic literature may vary in this regard. Thus *anakṣikāya svāhā* TS. 7. 5. 12. 1. but *anakṣakāya svāhā* KSA. 5. 3.—*anasthikāya* (*-akāya*) *svāhā* TS. (KSA.). Cf. *asthūbhyah svāhā* VS. 39. 10, TS.; but *asthūbhyah sv.* KSA. 3. 6. Cf. also the Bahuvrīhis *anastha*, *anasthan*, *anasthi*, *anasthimat*—all of which are found.

The corpus of variants revealed by the Vedic Concordance, which I have been able to examine through the kindness of Prof. Bloomfield, further reveals the fact that in a number of cases the same pada in different texts varies by adding *ka* to, or dropping it from, a Bahuvrīhi stem. Examples are *anaṅgá* : *anaṅgaka*, *aprāṇá* : *aprāṇaka*, *amanás* : *amanaská*; and *avajihva nījihvika* HG. 1. 15. 5* cf. *avajihvaka nījihvaka* ApM. 2. 21. 32*. The second word in both places should probably be emended to *nir-jihvaka*. A form *-jihvika* as a Bahuvrīhi-final is quite inexplicable.

The list gives the final parts of the compounds only, in alphabetical order; the stem-form of the original word is added where it is not obtainable by simply striking off the *-ka*.

55. List of Bahuvrīhi *ka*-words.

word	occurs	stem final	word	occurs	stem final
-aṅṅaka	U.	<i>a</i>	-kaṇṭhaka (<i>sahá-</i>		
-akṣaka < <i>aksán</i>	KSA.	(<i>an</i>) <i>a</i>	<i>k.</i>) (< <i>kaṇṭhá</i>)	AV.	<i>a</i>
-akṣiká (< <i>áksi</i>)	TS.	<i>i</i>	-kadruka (<i>trí-k.</i>)		
-agnika	B.	<i>i</i>	(< <i>kádrū</i>)	RV.	<i>u</i>
-aṅṅaka	KSA.	<i>a</i>	-karnúka (< <i>kár-</i>		
-aṇuka	U.	<i>u</i>	<i>ṇa</i>)	TS.	<i>a</i>
-ambaka (<i>tryà-</i>)			-kalpaka	U.	<i>a</i>
< <i>ambá</i>	RV.	<i>ā>a</i>	-keçaká (< <i>kéça</i>)	AV.	<i>a</i>
-açitika	U.	<i>i</i>	-cakṣúṣka < <i>cákṣus</i>	U.	<i>s</i>
-astaká (< <i>ásta</i>)	AV.	<i>a</i>	-carmáka < <i>cár-</i>		
-asthaka < <i>asthán</i>	KSA.	(<i>an</i>) <i>a</i>	<i>man</i>	TS.	(<i>an</i>) <i>a</i>
-asthika (< <i>ásthi</i>)	TS.	<i>i</i>	-cārika < <i>cāra</i> cf.		
-ākhyaka < <i>ākhyā</i>	U.	<i>ā>a</i>	<i>cārīn</i>	U.	<i>a>i</i>
-ādika	U.	<i>i</i>	-citika (in <i>śúṭ-c.</i>)		
-āçirka < <i>āçis</i>	TS.	<i>s>r</i>	(< <i>citi</i>)	B.	<i>i</i>
-āsandika	S.	<i>ī</i>	-jihvaka < <i>jihvá</i>	S.	<i>ā>a</i>
-ukthaka (<i>sók-</i>)			-tantrika	B.	<i>ī</i>
(< <i>ukthá</i>)	B.	<i>a</i>	-tapaska	U.	<i>s</i>
-upaniṣatka < <i>upa-</i>			-tamaska	U.	<i>s</i>
<i>niṣad</i>	U.	<i>d>t</i>	-tūlaka, - <i>ikā</i>	U.	<i>a</i>
-upasatka < <i>upa-</i>			-tejúska (< <i>téjas</i>)	U.	<i>s</i>
<i>sád</i>	S.	<i>d>t</i>	-tvákka < <i>tvác</i>	U.	<i>c>k</i>
-upānatka < <i>upā-</i>			-tsaruka	B.	<i>u</i>
<i>nah</i>	S.	(<i>d</i>) <i>h>t</i>	-datka < <i>dánt</i>	U.	(<i>n</i>) <i>t</i>
-rṣika (in <i>sarṣika</i>)	S.	<i>i</i>	-dantáka (< <i>dánta</i>)	TS.	<i>a</i>

word	occurs	stem final	word	occurs	stem final
- <i>dīkka</i> < <i>diç</i>	B.	ç>k	- <i>yonika</i>	S.	i
- <i>dhātuka</i> < <i>dhātu</i>	U.	u	- <i>rajaska</i>	U.	s
- <i>dhūmaka</i>	U.	a	- <i>raçmika</i>	S.	i
- <i>navaka</i>	U.	a	- <i>retāska</i> (< <i>rétas</i>)	B.	s
- <i>nāmaka</i> < <i>nāman</i>	S.U.	(an)a	- <i>lepaka</i>	U.	a
- <i>nivitka</i> < <i>nivīd</i>	Āit.Ār.	d>t	- <i>lōmaka</i> (or - <i>āka</i>)		
- <i>patnīka</i>	B.	ī	< <i>lōman</i>	TS.	(an)a
- <i>pariçritka</i>	S.	t	- <i>vapāka</i>	B.	ā
- <i>pariṣatka</i> < <i>pari-</i>			- <i>varṇaka</i>	U.	a
<i>ṣād</i>	S.	d>t	- <i>varṣika</i> < <i>varṣā</i>		
- <i>paçuka</i>	S.	u	cf. <i>varṣin</i>	S.	a>i
- <i>pitrka</i>	S.	r	- <i>rastuka</i>	U.	u
- <i>pūro'</i> <i>nuvākyāka</i>			- <i>vākkā</i> < <i>vāc</i>	B.	c>k
< - <i>yā</i>	B.	ā>a	- <i>vibhaktika</i>	B.	i
- <i>purorūka</i> < <i>pu-</i>			- <i>viṣuvatka</i>	S.	(n)t
<i>rorūc</i>	B.	c>k	- <i>vṛttika</i>	U.	i
- <i>pūn vaka</i>	U.	a	- <i>çirṣāka</i> < <i>çirṣān</i>	TS.	(an)a
- <i>prajāpatika</i>	B.	i	- <i>çūlika</i> < <i>çīla</i> cf.		
- <i>prānaka</i>	KSA.	a	<i>çilin</i>	B.	a>i
- <i>bāhuka</i>	S.	u	- <i>ṣaṭka</i> < <i>ṣāṣ</i>	S.	ṣ>ṭ
- <i>binduka</i>	U.	u	- <i>saṁvitka</i> < <i>saṁ-</i>		
- <i>bṛhatika</i>	S.	ī	<i>vīd</i>	U.	d>t
- <i>brahmaka</i> < <i>brah-</i>			- <i>saṁkhyaka</i> } < <i>saṁ-</i> {	U.	ā>a
<i>mān</i>	S.	(an)a	- <i>saṁkhyāka</i> } <i>khyā</i> {	U.	ā
- <i>bhasmaka</i> < <i>bhās-</i>			- <i>saṁjñaka</i> < <i>saṁjñā</i>	U.	ā>a
<i>man</i>	B.	(an)a	- <i>saṁnyāsika</i> < <i>saṁ-</i>		
- <i>majjāka</i> < <i>majjān</i>	TS.	(an)a	<i>nyāsa</i> cf. <i>saṁ-</i>		
- <i>manaska</i>	KSA., U.	s	<i>nyāsin</i>	U.	a>i
- <i>māṁsāka</i> (< <i>mān-</i>			- <i>samitka</i> < <i>samīdh</i>	S.	dh>t
<i>sā</i>)	TS.	a	- <i>sākṣika</i> < <i>sākṣin</i>	U.	(in)i
- <i>mānaka</i> (see In-			- <i>sāmidhenika</i>	B.	ī
dex s. v.)	B.	a	- <i>sāvitrīka</i>	S.	ī
- <i>medāska</i> (< <i>médas</i>)	TS.	s	- <i>snāvāka</i> < <i>snāvan</i>		
- <i>yajūṣka</i> < <i>yājus</i>	B.	s	(or - <i>vān</i>)	TS.	(an)a
- <i>yantṛka</i>	S.	r	- <i>hetuka</i>	U.	u
- <i>yūṣka</i> < <i>yūs</i>	S.	s			

The Suffix 4 ka. Meaning—see § 13.

56. The five words belonging here have been already quoted; they are (5 words):

ántaka (A V.), ender, death < *ánta*, end.

yācanaka (U.), beggar < *yācana*, request

vīmanyuka (A V.), freeing from wrath, < *vīmanyu*, free from wrath.

çītaka (R V.), cooling < *çitā*, cool.

hlādaka (R V.), refreshing < *hlāda*, refreshment.

Unclassified (Secondary) *ka*.

57. All, or nearly all, the following words in suffixal *ka* have evidently a secondary suffix. But it is impracticable to separate them into the various categories, either on account of the uncertainty of their origin, or in a few cases because, though they are clear as to general derivation, it cannot be determined which branch of the suffix they belong to. For instance, *sómaka*, a proper name, might mean "Sóma-like" (1 *ka*), "of or belonging to Sóma" (2 *ka*), "having *sóma*" (3 *ka*, cf. *mádhuka* n. pr.), or it might be a diminutive.—In most of the following cases, however, the etymologies are unknown; and often even the meaning of the word is not clear. Whatever can be said about them will be said in the General Index (q. v.), under the individual words. They are recorded here merely for the sake of completeness.

58. List of Unclassifiables. (87 words.)

<i>añjalikā</i> (or <i>nyañj-</i>)	<i>kāmikā</i>
<i>āmanika</i> (or <i>āmanaka</i>)	<i>kirikā</i> (or <i>gir-</i>)
<i>arātakī</i>	<i>kūçavartaka</i> (?)
<i>avacatnuka</i>	<i>kuṣītaka</i>
<i>ādḥaka</i>	<i>kustuka</i>
<i>ānuṣūkā</i>	<i>koçātaka</i>
<i>ārcatkā</i>	<i>kyāku</i> ?
<i>ikṣvāku</i> (or <i>-kū</i>)	<i>klītaka</i>
<i>utpātika</i>	<i>kṣitikā</i>
<i>uddālaka</i>	<i>lhāṇḍika</i>
<i>upānasyaka</i>	<i>golattikā</i>
<i>ūlmuka</i>	<i>ciccikā</i>
<i>ṛkṣāka</i>	<i>chūbuka</i> (cl. <i>cibuka</i>)
<i>orimikā</i>	<i>-jalāyukā</i> in <i>trṇa-j</i> .
<i>kakāṭikā</i>	<i>jānukā</i> (or <i>ni-j</i> .)
<i>kānaka</i>	<i>jumbakā</i>
<i>kāplaka</i> (or <i>kālpaka</i>)	<i>ḍerikā</i>
<i>kalaṅka</i>	<i>ḍhārikā</i> and <i>ā-ḍh</i> .
<i>kālmalikān</i>	<i>dūtaka</i>
<i>kaçōka</i>	<i>nabhāka</i>

<i>narāka</i> and <i>nāraka</i>	<i>mādāṇaka</i>
<i>pakvakā</i>	<i>rodūkā</i>
<i>patantaka</i> (suffix <i>aka</i> ? Cf. § 15. footnote.)	<i>ropañākā</i>
<i>patākā</i> (primary?)	<i>vārtikā</i>
<i>parisāraka</i> (- <i>aka</i> suffix?)	<i>valūka</i>
(<i>partikā</i> , <i>patikā</i> - corrupt.)	<i>vasukā</i> (2 <i>ka</i> or 3 <i>ka</i> ?)
<i>pājaka</i>	<i>vālukā</i>
<i>pāvakā</i>	<i>viḥkṛndhikā</i>
<i>piṇyāka</i>	<i>visrāṇsikā</i>
<i>pīnāka</i>	<i>vīndāraka</i>
<i>pīppakā</i>	<i>ṣayāṇḍaka</i>
<i>pundūrīka</i>	<i>ṣayāṇḍaka</i>
<i>pr̥ḍāku</i>	<i>ṣāriṣṭākā</i>
<i>pr̥ṣātaku</i>	<i>ṣālūka</i>
<i>prahastaka</i>	<i>ṣipiviṣṭakā</i> (1 <i>ka</i> ? cf. General Index s. v. and § 45)
<i>prāṣātika</i>	<i>ṣilaka</i>
<i>baṭaraka</i>	<i>ṣrūkhāṇikā</i> (v. l. <i>siṅgh-</i> &c.)
<i>balākā</i>	<i>ṣūnaka</i>
<i>bṛbūka</i>	<i>salalūka</i>
<i>maḍūṣikā</i>	<i>sīlika-</i>
<i>maṇḍūka</i>	<i>sómaka</i>
<i>mānasthaka</i> ?	<i>sāūrāki</i>
{ <i>mastaka</i>	(<i>sphaṭika-</i> primary?)
{ <i>mastīṣka</i>	<i>hātaka</i>

Chapter IV.

The Secondary Suffix *Ka*. Diminutives.

(About 180 words.)

59. It is not always easy or possible to draw the line sharply in any given case between the various diminutive values of the suffix *ka*, as laid down in § 10—which see. The diminutive of pity is almost always associated with contempt; without that idea it is doubtful whether it is found at all in the Veda. There are very few words in the Veda which show a marked endearing force of the suffix; in so far as it occurs it is usually found along with simple diminutive force (smallness). Again, the imprecatory and contemptuous uses are often hard to distinguish; nevertheless they are essentially distinct. They may, and very often do, exist quite independently of each other.

60. In treating of adjectives and pronouns having this suffix, it is to be noted that the diminutive idea (of whatever variety) usually belongs not so much to the adjective or pronoun itself as to the noun with which they are connected,—or rather to the whole complex idea; the diminutive notion pervades, as it were, the atmosphere of the whole sentence. So e. g. AV. 20. 136. 14 *kumārikā piṅgalikā*—"wretched little yellow girl;" it is an open question whether *piṅgalikā* (from *piṅgalā*, tawny) has the suffix *ka* in the sense of our suffix *-ish*, so frequent with color words (*piṅgalakā*- "yellowish"), or whether the suffix has simply the contemptuous diminutive force, which is then, so to speak, transferred from the noun *kumārikā* to its modifying adjective. I incline to the latter view in this case; the occurrence is by no means rare in the Veda, and is so simple and natural that it is hardly necessary to dwell on it.

We shall now proceed to classify the *ka* diminutives by lists, according to the divisions laid down in § 10.

I. True Diminutives. (72 words.)

61. The suffix is applied—

- a) to nouns—indicating an object of the same kind as the primitive, but smaller.
- b) to adjectives of smallness—emphasizing and exaggerating that quality.
- c) to adjectives of color,—indicating a color approaching or suggesting the original color (Eng. *-ish*, Ger. *-lich*).
- d) rarely to other adjectives and adverbs—indicating qualities approaching but falling short of the original quality.
- e) principally to nouns—indicating not physical smallness, but relatively secondary importance of the object denoted. Related to, but distinct from, the diminutives of pity and contempt; such notions are absent here.

62. a) *Diminutives of Size*—nouns. (51 words.)

akṣamālīkā, "little rosary," n. of an Up.—Mukt. Up. 1. 36 < *akṣamālā*

alābuka, the fruit of the bottle-gourd (*alābu*) < *alābu*
AV. 20. 132. 1, 2 = RVKh. 5. 15. 15 *ād alābukam ēkakam alābukam nīkhātakam*. "Just one little *alābu*, a little *alābu* cut into just a little."

avaghaṭarikā, kind of lute, CaṅkhCr. 17. 3. 12.—Prob. Dim., cf. *ghāṭarī*, lute.

avatakā, little spring, AV. 2. 3. 1. So Ppp., adopted by Bl. and Ludwig; Wh. keeps the Cāun. MSS. *avatkā*, which is scarcely interpretable. < *avatā*.

avikā, little sheep, ewe-lamb. RV. 1. 126. 7; AV. 20. 129. 17. Prob. Dim. < *āvi*.

(In an obscene passage; is the suffix perhaps due to that fact? See § 85.)

indragopaka, little firefly. Amrt. Up. 36 ("Marienkäferchen," Deuss.) < *indragopa*.

(1) *upajihvikā* RV. 8. 102. 21 &c. } names of sorts of ants.
 (2) *upajikā* AV. 2. 3. 4; 6. 100. 2 &c. } Whatever the true inter-
 (3) *upadikā* CBr. 14. 1. 1. 8 } relation of these words
 may be, it is safe to say they are diminutives. Bl. (AJP. 7. 482 ff.) derives (2) from (3), and then (1) from (2) by popular etymology. Is *upadehikā* (Class.) in like manner a popular etymology < *upadikā*, and is *dehikā* (Class.) further etymologized from that? Or are two quite different stems confused in this group, the bases *deha* and *jihvā*?

-*kanikā*, a minute particle of anything, in *vaṭa-k*. Sarvop. 2. < *kāṇa*.

kanānakā for *kanī-*, pupil of the eye. only TS. 5. 7. 12. 1. Corrupt for *kanī-*, as shown by fact that the same pada in other places (VS. 25. 1. 2; MS. 3. 15. 1; KSA. 13. 2) reads *kanī-*.

kanānakā (RV. 10. 40. 9, VS. 4. 3 &c.). -*akā* (RV. 4. 32. 23), *kanīnakā* (CBr. 14. 5. 2. 3), -*ikā* (AV. 4. 20. 3 &c.), pupil of the eye, from *kanīna*, -*ā*. Bloomfield (AJP. 17. 400, Note 2) has shown conclusively that in all the known occurrences these words mean "pupil of the eye," and never "boy" or "girl."

kanyākā, pupil of the eye, Āit. Ār. 3. 53. 5. < *kanyā*.

karkandhukā, tiny jujube-berry. AV. 20. 136. 3 (where MSS. and Edd. *kārkaṇdhūkā*) = RVKh. 3. 22. 3 (has correctly *ukā*). See *alpikā* under § 86. The obscene meaning pervades the passage so thoroughly that this word might also be classed there. < *karkāndhu*

karkarikā, little lute. AV. 20. 132. 3.

< *karkarī*, lute, RV. and Cāṇhkr.

kārṇaka, tendril or handle ("earlet"), CBr. 9. 2. 3. 40; KātyCr. 18. 4. 6, 7. < *kārṇa*. Cf. § 86.

kunḍikā, little pot. SaṁnyUp. 4. 1. Of the pot of the Saṁnyāsin, in a description of his modest belongings. Dim. < *kunḍa*.

kumārakā, *ikā*, boy, girl, RV. 8. 69. 15 &c. &c. *kumārā*, ā.
kṣurikā, "little dagger or razor," n. of an Up. Kṣur. Up. 1 < *kṣurā*.
khanātaka, prob. "little shovel," Āp. Cr. 17. 26. < **khanāta*.

NBD. makes it an adj. "dug up;" but it is clearly a noun, being connected with *samūhaka* (q. v.) by *vā*. Neither it nor its primitive **khanāta* occurs elsewhere, but prob. *Dim*.

golaka, little ball, Cāṅkh. Gr. 4. 19; Gobh. Gr. 4. 4. 20. < *gola*.
cāṇḍātaka, a short petticoat, QBr. 5. 2. 1. 8 &c. Derivation unknown; Prob. *Dim*.

jātaka, a new-born child, Kāuṣ. 11. < *jātā*.

jālaka, little net, web, Brh. Ār. Up. 4. 2. 3. Prob. *Dim*. < *jāla*, web.

tariṇṇaka, a young sprout, AV. 10. 4. 2. The verse is hopelessly obscure in its application, but some sort of dim. use may be assumed.

< *tārūṇa*,
nāsikā, nostril, RV. 10. 163. 1; AV. 10. 2. 6 &c. < *nāsā*, nose.

pādukā, slipper, Āçram. Up. 4. Dim.? < *pādū*, foot.

pipīlaka, (*ika* ?) and (most often) *ikā*, ant; AV. 7. 56. 7 &c. &c. < *pipilā*. See Word-List s. v.

putrakā, little son, RV. 8. 58. 8. Cf. § 67. < *putrā*.

-*prṇākā* in *hariṇa-p.*, the (fem.) young of any animal. No **prṇā* occurs; but it is clearly a dim. Cf. Class. Skt. *pr-thu-ka*, Lt. *pario*, *πάρτις* &c.

prapāṭhaka, little section, subdivision of cert. works

< *prapāṭha* "lecture."

priyāṅgukā, little panic-seed, Sāmavidh. Br. 2. 6. 10. < *priyāṅgu*.

mākṣikā, fly, RV. 1. 119. 9 &c. Dim. < *mākṣā*, fly.

maṣāka, gnat. AV. 4. 36. 9 &c.—The cognate Lith. *maszalai* with suffix IE. -*los* points to a Dim. -*ka*.

mukharikā, the bit of a bridle, Kāty. Cr. 16. 2. 5 (BR. wrongly 4) according to Sch. < *mukharī* (not otherwise found). The word is in any case ultimately < *mukha* and is prob. *Dim*. < *mukharī*.

muhukā, moment. RV. 4. 16. 17; 4. 17. 12.

< *mūhu* (or *muhū*) adv. acc.

mūtakā, little basket, QBr. 2. 6. 2. 17. < *mūta*.

mūṣaka, rat or mouse, Gārud. Up. 2 }
-ikā, rat or mouse, VS. 24. 36. } < *mūṣa* (Class.).

rāśnākā, little girdle, Kāth. 25. 9. < *rāśnā*.

vajrasūcikā, "little sharp needle," n. of an Up., also called *vajrasūcī*. Muk. Up. 1. 33. < *vajrasūcī*.

**vayāka* (in *vayākin*), prob. "little tendrils," RV. 5. 44. 5.

< *vayā*.

So Sāyaṇa and Ludw.; somewhat dub.; epithet of the soma-plant.

valmīka, ant-hill, VS. 25. 8 &c.

cf. *vamrā*, -ī, ant.

Doubtful. The -*ka* is prehistoric, but certainly suffixal, and probably dim.; cf. *formica*, μύρμηξ. If *valmīka* meant originally "little ant," its semantics have wandered peculiarly. *vāmanaka*, dwarf, Garbh.Up. 3.

Dim. < *vāmanā*, dwarf.

vibhīdaka, the *vibhīda*(*ka*) nut used as a die. RV. 7. 86. 6; 10. 34. 1.

< *vibhīda*.

Although the form *vibhīda*(-*ta*) does not occur until later, the -*ka* was clearly felt as dim.—Cf. *vibhītaka* Imprec. in § 79. *viśāṇakā*, n. of a plant, AV. 6. 44. 3.—Prob. "little horn," referring to horn-shaped leaves or flowers. Kāuṣ. even takes it as a real "little horn," not as a plant at all, and this may be right.—The other alternative is to regard the suffix as possessive (3 *ka*); *viśāṇakā*, "horned." This is on the whole less likely, though possible. Cf. *śāphaka*.

< *viśāṇa*.

śāphaka, n. of a plant, AV. 4. 34. 5 &c. Comm. says "a hoof-shaped plant;" prob. therefore "little hoof" rather than "hoofed;" cf. *viśāṇakā*, to which the same questions apply.

< *śaphā*.

śulākā (once *āka*, Kāth. 26. 1), little stake or twig. TS. 6. 3. 1. 2 &c.

< *śalā*; cf. 29 c.)

śūlka, splinter, TBr. 1. 1. 9. 9 &c. Cf. § 29 b. prob. < *śalā*. *śaṣaka*, (little) hare?. Adbh.B. in I. St. 1. 40.

< *śaṣā*; no very clear dim. force.

samūhaka, little sweeper, Āp.Ūr. 17. 26. (NBD.. "heap"). See *khanātaka*.—The word *samūha* only occurs as a n. of action, not as a noun of instrument; doubtless it must have been used in the other sense too, as this word shows,—for *samūhaka* clearly has that meaning. The whole sense of the passage suggests also diminutive value. Otherwise it would be possible to call *samūhaka* a noun from *sam* + *√ūh* with primary *aka*.

< *samūha* (?).

sūcika, "little needle," epithet of a stinging insect, RV. 1. 191. 7.

< *sūcī*.

I do not think any imprecatory or other pejorative force is present here.

63. b) *Diminutives of Size*—adjectives. (8 words.)

aṇīyaskū, more tiny, AV. 10. 8. 25. *bālād ékam aṇīyaskām*, "one is more tiny than a child." < *aṇīyas*. comparative.

arbhaká, tiny, RV. 1. 114. 7 &c. (see also § 72) < *árbha*.
alpaká, tiny, AV. 20. 136. 3 (see Obsc., Dim., § 86); ÇBr. 1.

7. 3. 25 &c.

< *álpa*.

kanisthaká, smallest, AV. 1. 17. 2 } < *kanisthā* (or
(kanisthikā, little finger, ÇBr. 3. 1. 2. 4 &c.). } *kún-*) superlative.
kṣullaká, tiny, TS. 2. 3. 8. 3. But see § 68.

< **kṣulla* < *kṣudrá*, prakritized form.

daharaka, short, KāuśBr. 19. 3. < *dahara*.

bālaka, young: a child, KṛṣUp. 19; MukṭUp. 2. 7. < *bāla*.

çiçuká, young (animal), AV. 6. 14. 3. < *çiçu*.

64. c) *Diminutives of Degree—adjectives of color.* (6 words.)

kālakā, „blackish,” n. of an unidentified bird. VS. 24. 35. < *kāla*.

kṛṣṇaka, prob. „blackish,” n. of a plant, Kāuś. 80. < *kṛṣṇā*.

piṅgalaká, *iká*, tawny(ish?), AV. 20. 136. 14.—But see § 60.

< *piṅgalā*.

babhruká, brownish, ÇBr. 1. 6. 3. 3; (*bá-*) an ichneumon VS.

24. 26.

< *babhrū*.

lohita, reddish, red. Āp. (NBD.; no reference quoted.) < *lōhita*.

çyāvaka, „brownish,” n. of a man, RV. 8. 3. 12; 8. 4. 2. < *çyāvā*.

Examples are more plentiful in Classical Skt.

65. d) *Diminutives of Degree—other adjectives (and adverbs).*
 (3 words.)

abhimādyatká, somewhat drunk, ÇBr. 1. 6. 3. 4; 5. 5. 4. 5.

< *abhimādyant*, pres. p. *abhi-* *V mad*.

nikhātaka, cut into a little, AV. 20. 132. 2—see *alābuka* § 62.

< *nikhāta*.

çanakāís, adv., quite gently, softly, RV. 8. 80. 3 &c.

< *çanāís* (*çān-*).

The German word *sachtchen* exactly renders *çanakāís*.

66. e) *Diminutives of Importance* (without contempt). (4 words.)

upapātaka, a minor sin, Nār.Up. 5; Kālāg.Up. 2. < *pāta*. sin

pātaka is also found, but dim. force is hard to find in it:

it has rather the aspect of a nomen agentis. The prefix

upa- adds dim. force, and there is no doubt that in *upa-*

pātaka at least the suffix *-ka* suggested diminution to the

consciousness of the hearer.

ékaka, „just one (little, valueless),” AV. 20. 132. 1—see *alābuka*,

§ 62.

< *éka*.

dēvikā, an inferior class of goddesses. ĀitBr. 3. 47, 48; ÇBr.

9. 5. 1. 34.

< *devī*.

hōtrka, assistant-priest, secondary Hotṛ, ÇBr. 13. 5. 4. 24 &c. < *hōtr*.

II. Diminutives of Endearment. (7—8 words.)

67. The paucity of Vedic material under this head is partly due to the character of the literature, whose atmosphere is to a large extent unfavorable to "*Kosenamen*." But after taking this into consideration, it is surprising that the number should be so small. Following are the only cases which seem to me clear enough to warrant classifying them here.

ambikā, dear little mother, *Mütterchen*. VS. 23. 18 &c.

< *ambā* or *ambī*.

ambālikā, dear little mother. *Mütterchen*. VS. 23. 18, ÇBr. 12. 2. 8. 3 &c.

< *ambālā* or *-lī*.

am̐be (MS. *amby*) *ambike ambālike* VS., ÇB., MS. *am̐be ambāly ambike* TS. &c.: see Ved. Conc.

(The suffix *-lā* is also diminutive.)

ulūkhalaka, dear little mortar (*Mörserchen*. Gr.). RV. 1. 28. 5.

< *ulūkhala*.

yác cid dhi tvám gṛhēgrha ulūkhalaka yujyāse ihā dyumātaman vada jāyatām iva dundubhīh

"However thou mayst be used in every house, O dear mortar, yet sound most clearly here!"

jīvikā, in *jīvikā nāma stha tū imām jīvayata*. MS. 4. 8. 7, 115. 5; ĀçvÇr. 6. 9. 1; ĀpÇr. 14. 20. 8. Addressed to the waters, in a magic formula or charm: "ye are *jīvikās*.—do ye then make this man live (*jīv*)!" The same formula with *jīvā* in place of *jīvikā* occurs in the same places quoted and in others (see Ved. Conc.). Cf. also AV. 19. 69. 1 ff., especially 4. Verse 1 reads *jīvā stha jīvyāsam* -, "ye are alive (*jīvā*); may I live!" Vs. 4 reads *jīvalā stha jīvyāsam*—. Whitney renders *jīvalā* "lively." But note the diminutive suffix *-lā*, and cf. *jīvikā*. The occurrence of both these words with diminutive suffixes in practically the same connection shows that neither of them is accidental. They were both evidently felt as carrying the same quasi-endearing, coaxing idea which is found in *ulūkhalaka* and *māṅgalikā*. Although this meaning seems clear enough here, to render it in English is a different proposition, and one which I do not feel equal to attempting at present.

pādakā, little foot (*Früßchen*. Gr.). RV. 8. 33. 19. < *pāda*.

saṁtarān pādakāu hara—"keep your little footies together," spoken in a playfully affectionate way.

putrakā, little sonny. RV. 8. 69. 8.

< *putrá*.

Dim. of size, with addition of some endearing force.

maṅgalikā, (adj.) of good omen, AV. 19. 23. 28.

< *mangalya* (see § 29 a).

The word clearly refers to the hymns of AV. 18. which are funeral hymns. Lanman is right in remarking (note to Whitney's translation) that it is a euphemism for this particularly ill-omened class of hymns. The suffix *ka* perhaps adds something to this euphemistic touch by giving it a turn akin to the endearing diminutive (cf. *ulūkhalaka* and *jīvīkā*).

It would be futile to try to bring this out in translation.

(*sūbhadrīkā*), courtesan. VS. 23. 18.

< *sūbhadra*; cf. "*Freudenmädchen*."

This word may have been, and probably was, originally a playfully endearing dim., but in this passage, where alone it seems to be found, the suffix is rather imprecatory: see § 79.

III. Diminutive of Pity. (3 words.)

68. In the Veda this almost always carries with it the additional idea of contempt. It is almost doubtful whether the Veda knows the suffix *-ka* with the connotation of simple pity in a good sense at all. All the following instances are capable of being treated as terms of contempt.

unmantaka, insane, only Āçram. Up. 3. The exact formation of this word is uncertain, though its general etymology (*ud* + *Vman*) is clear enough. No **manta* or **unmanta* occurs. If the *ka* is diminutive, as seems likely, it belongs under this head.

kṣullakā, tiny. cf. § 63. 72. This word, < **ksulla* = *kṣudrá*, regularly carries with it (at least in the Veda) the idea of weakness, as well as smallness. So ÇBr. 1. 8. 1. 3—*yávad vāi kṣullakā bhāvāmo bahvī vāi nas tāvan nāstrā bhavati*.—"As long as we are poor (helpless) little shavers, we are in great danger." In this case we seem to have a true Dim. of Pity.—More often the word takes on contemptuous force; see § 72.

pradrāṇaka, very poor. Chā. Up. 1. 10. 1.

< *pra*, intens, + *drāṇa*, poor.

Probably pitying dim. No idea of contempt seems to be prominent.

IV. Diminutives of Inferiority with evil connotation, often called **Pejoratives**. (94 words.)

69. They arise from the above-mentioned diminutives of pity and inferiority (§§ 66, 68) and may be conveniently divided into three classes (§ 10): 1. Contemptuous—§ 70—76; 2. Imprecatory—§ 77—84; 3. Obscene—§ 85—86.

1. **Contemptuous Diminutives.** (29 words.)

70. In these the idea of smallness carries with it that of weakness or wretchedness and contempt. Applied to nouns, adjectives, participles, pronouns, and adverbs. Common from the earliest times. As has been said, this category is often difficult, of not impossible, to separate from the imprecatory diminutive, with which it is closely connected. In many of the words quoted under each head something of the other idea is also present.

Following are the words which show more or less clearly a contemptuous use of *ka*, arranged according to the parts of speech.

71. a) *Nouns.*

āhallika. "prattler"? BrhĀrUp. 3. 9. 25. A term of reproach whose mg. and etymology are not certain, but prob. containing some pejorative notion.

usrikā, miserable bullock. RV. 1. 190. 5 (see § 29 a, N.). < *usrā*.

yé tvā devosrikām manyamānāḥ pāpā bhadram &c. "The evil ones who reckon thee, O God! (Brhaspati) as a wretched bullock." &c.

kumārakā, RV. 8. 30. 1—see § 72 s. v. *arbhakā*.

kumārikā,¹ (despised) little girl. AV. 10. 4. 14: 20. 136. 14.

< *kumārā*.

AV. 10. 4. 14—*kāirātikā kumārikā sakā khanati bheṣajām*—"Even the wretched little *kirāta*-girl, even she—a worthless creature (*sakā*)—digs up a remedy (which is sufficient to destroy the serpents)." In a charm against snakes. The idea is that a worthless person of very little power or influence can destroy the hostile serpents. The *kirātas* were a despised mountain tribe. See § 72 s. v. *kāirātikā*.

This verbal minimizing of the power of adversaries is a common characteristic of all magic, and we shall have occasion to note it more than once in dealing with our suffix, which is peculiarly adapted to this purpose. (cf. RV. 1. 191. 11—16, and see s. v. *kuṣumbhakā*, *ṣakuntikā*.)

¹ Either accent.

For AV. 20. 136. 14. where *kumārikā* also occurs. see § 72 s. v. *pīṅgalakā*.

kuṣumbhakā, venom-bag of an insect, RV. 1. 191. 15, 16.

< *kuṣumbha*, id.

vs. 15—*iyattakāḥ kuṣumbhakās takām bhinadmi ācmanā tato viṣām prā vāvṛte pārācīr ānu sainvātāḥ*

16—*kuṣumbhakās tād abravīd girēḥ pravartamānakāḥ vṛcikas yārasām viṣām arasām vṛcika te viṣām*.

15. "A wretched, feeble thing is that miserable little poison-bag! I smite it with a stone: then the poison has departed into remote places."

16. "Thus spake the accursed little poison-bag, slinking down from the mountain: 'The poison of the accursed stinger is powerless.' Thy poison, accursed little stinger, is powerless."

The power of the poison is belittled; the speaker declares with all possible vehemence that he despises it, and that it cannot do him any harm. See s. v. *kumārikā* and *çakuntikā*. Of course imprecatory, as well as contemptuous, force pervades the *ka* suffixes which bristle in this passage: I have tried to bring out both ideas in the translation.

The word *kuṣumbhakā* is often translated "venomous insect," as if it contained the suffix 3 *ka* and meant "possessing a *kuṣumbha*." It seems clear, however, that it has just the same meaning as *kuṣumbha* (e. g. AV. 2. 32. 6), plus a pejorative value. Our modern preconceived ideas, based on modern prejudices, of what such stanzas ought to say in order to give "good sense," are of practically no weight whatever with verses of this kind, which may even be intentional nonsense. The meaning "poison-bag," incidentally, fits in vs. 15, at least, quite as well as the other meaning. And as for vs. 16, we can only say that the poet speaks of the poison-bag as crawling down from the mountain, and there is an end of it. If anyone demands that logical sense be extracted from this abracadabra, I respectfully request that he identify the mountain (*girī*) alluded to, and explain why the *kuṣumbhakā* (whatever its meaning) should be crawling down from it.—A parallel stanza to vs. 16 is AV. 5. 13. 9; see § 73 s. v. *avacarantikā*.

vṛcika, "stinger," scorpion, from *Vṛaṣc*. The *ka* may be in origin primary and not diminutive; but that it is *felt* as

diminutive in this passage is evident. The imprecatory force of the suffix is strong in this word.—stronger than the contemptuous, perhaps.

dēvaka, (wretched, worthless) god, RV. 7. 18. 20. < *devú*.
dēvakam cin mānyamānām jaghanta.

"The wretched fellow who thought himself a godling, forsooth! (*cid*) him didst thou (Indra) slay."

dhanuṣka, small, poor bow. Lāṭy 8. 6. 8. < *dhánus*.

pāṇḍaka, eunuch, weakling. Kāth. 28. 8: 13. 7. < *pāṇḍa*, id.

nāpuṁsaka, eunuch, hermaphrodite. QBr. 5. 5. 4. 35 &c. < *na-puṁsa*.

pūlkaka or *pūklaka*, n. of a despised tribe. MS. 1. 6. 11. < ?

In Classical Skt. they are called *pulkasa*: the dim. suffix *-ka* is prob. present in the word.

rājaká, worthless kinglet. RV. 8. 21. 18. < *rājan*.

citra id rājā rājakā id anyaké yaké sárasvatīm ánu &c.

"Citra is a *real* king: worthless kinglets truly are the other wretches (*anyaké*) who (*yaké*) live about the Sarasvatī" &c.

viṣadhānaka—see under § 79.

viṣpuliṅgaká, (miserable) little spark?. RV. 1. 191. 12.

< *viṣp(h)ulinga*.

trīḥ sapta viṣpuliṅgakā viśásya púṣyam akṣan. The exact meaning of the word is not entirely clear, but it must be a contemptuous formation < *viṣphuliṅga*, like *ṣakuntikā* (q. v.) in the preceding verse, and with a similar application, viz. used in minimizing verbally the power of the poison. See also *kuṣumbhaká*, and cf. *kuṁārikā*. The *viṣpuliṅgakāḥ* must be some weak and worthless creatures, at all events.

vīṣeika, scorpion. RV. 1. 191. 16 &c. &c. See on *kuṣumbhaká*, and, also § 79.

ṣakuntaká, *ikā*, (wretched, accursed) little bird. < *ṣakúnta*.

RV. 1. 191. 11 *iyattikā ṣakuntikā sakā jaghāsa te viśám só cin ná ná marāti nó vayám marāmūrē asya yójanam haristhá mádhv tvā madhulā cakūra*.

"A miserable little creature is that little bird!—*she* has swallowed thy poison; yet she shall not die: we too shall not die! Far off is thy course; the sun-god has turned thee into honeyed honey."

Another case where the power of a hostile object (poison) is belittled in words, the idea being that the very words by their magical power accomplish the things stated to be al-

ready accomplished. "Even a wretched little bird has eaten the poison without injury; what harm can it do us?"

AV. Ppp. folio 115 b, line 1—*çakuntikā dhayantikā*, see § 73.

VS. 23. 22, 23 and parallel passages, contain this word. They occur in the obscene parts of the Aṣvamedha ceremony: the use of the suffix belongs to the Dim. of Obscenity. and will be mentioned there—see § 85.

çalākakā, wretched little splinter, AV. 20. 130. 20. < *çulākā*.

See s. v. *yakā*, § 75.

72. b) *Adjectives*.

arbhakā. small, weak, wretched. RV. 7. 33. 6 (see also § 63).
< *ārbha*.

daṇḍā ivēd goājanāsa ūsan pārichinnā bharatā arbhakāsaḥ.

"Like ox-driving staves, the miserable Bharatas were crushed to pieces."

RV. 8. 30. 1—*nahī vo ūsty arbhakó dēvāso nū kumārakūḥ*

"Not one of you is a little wretch, o gods! nor a weak boy!"

AV. 1. 27. 3, in a charm against serpents, *nārbhakā abhī dadhṛṣuḥ* (cf. *kuṣumbhakā*, § 71, and comment.).—Similarly

AV. 7. 56. 6,

ābhūka, powerless, weak, AV. 6. 29. 3.

< *ābhū*, which means simply "empty."

kāirātakā, ikā, of the *kirātas* (contemptuous), AV. 10. 4. 14.

< *kāirāta*, id.

See *kumārikā*, § 71.—They were a despised tribe. This word is a contemptuous formation from the adjective *kāirāta*.
kṣullakā, tiny and wretched. See § 68, 63. < *kṣudrā* (**kṣulla*).

AV. 2. 32. 5 shows the word in a clearly contemptuous sense (with some imprecatory force added):

ūtho yē kṣullakā iva sūrve te krimayo hatūḥ = "The tiny little wretches—all the worms are slain." In a vermin-charm.

piṅgalikā, tawny, AV. 20. 136. 14.

< *piṅgalā*.

kumārikā piṅgalikā, "the wretched little yellow-girl."

This color-adjective may or may not partake of the force of the Dim. of degree otherwise common with such adjectives. See §§ 60, 64.

bhinnāka, broken and worthless, MantraBr. 2. 7. 3. < *bhinnā*.

athāi 'śām bhinnakaḥ kumbho ya eśām viṣadhānakāḥ.

"So their bag is crushed and powerless,—their cursed poison-receptacle." In a charm against poisonous insects.

In the word *viṣadhānaka* the idea of imprecation seems to outweigh that of contempt.

73. c) *Participles.*

avacarantikā, slinking down, AV. 5. 13. 9. < *avacarantī*.

karnā ṣvāvīt tād abravīd girér avacarantikā

yāh kācēmāh khanitrimās tāsām arasātamaṁ viṣām.

"The eared hedge-hog said, as she slunk down from the mountain," &c.—The whole stanza is suggestive of RV. 1. 191. 16, and pada b is pada b of the RV. verse with the substitution of *avacarantikā* for *pravartamānakāḥ*, q. v. The sense of the *kā* is doubtless contemptuous. This stanza has less appearance of freshness and originality than the RV. stanza: it looks like a secondary and epigonal reminiscence of the latter. See § 71 s. v. *kuṣumbhakā*.

pravartamānakā, slinking down, RV. 1. 191. 16. < *pravartamāna*.

See *kuṣumbhakā*. § 71, and cf. *avacarantikā* above.

dhayantikā, sucking, AV. Ppp. folio 115 b, line 1. < *dhayantī*.

ṣakuntikā (MS. -ka) *me 'bravīd viṣapūṣpam dhayantikā*.

(For MS. *viṣapūṣpam* probably -*pūṣyam* is to be read; cf. RV. 1. 191. 12, and see § 71 s. v. *viṣpuliṅgakā*.)

"A miserable little bird said to me, as she sucked up the essence of the poison;—" (The following words in the MS. are not entirely clear to me; they are probably corrupt, and are in any case unimportant for the present purpose.) That the suffix *ku* here has contemptuous force is made clear by a comparison of RV. 1. 191. 11—16, of which this verse is a reminiscence. See *ṣakuntikā* in § 71, also *kuṣumbhakā*.

74. d) *Pronominal adjectives.*

anyakā. other (contemptuous), RV. 6. 21. 18.—See *rājakā*, § 71.

< *ānya*.

See also § 82, Imprecatory Diminutives.

iyattakā, *ikā*. so tiny and wretched, RV. 1. 191. 11, 15.

< *iyat*- "of such a size."

See *ṣakuntikā*, *kuṣumbhakā*, § 71.—In AV. 20. 130. 20 the MSS. have *uyāṁ yakāṁ ṣalōkakā*, for which R.-Wh. read *iyattikā ṣalā*:- but the correct reading is probably *iyāṁ yakā ṣalōkakā*, as shown by RV.Kh. 5. 15. 10.

75. e) *Pronouns.*

sakā, *sukā*, *tukād* &c., that (wretched or miserable little).

< *sa*, *sā*, *tad*.

RV. 1. 191. 11, see *ṣakuntikā* § 71.

AV. 10. 4. 14—see *kumārikā* § 71.

RV. 1. 191. 15—see *kuṣumbhakā* § 71.

Kāty. Cr. 13. 3. 21 *tukā vuyam plavāmahe*. Parallel texts read *ime* or *etā* for *takā*. There is no apparent reason for the dim. or pejorative suffix. The verse is difficult and uncertain; see Garbe on Vāit. S. 34. 9.

RV. 1. 133. 4 *yāsāni tisrāḥ pañcāṣāto 'bhivlaṅgāir apāvapuḥ tāt sū te manāyati takāt sū te munāyati*

(Addressed to Indra.) "Of them (witches) thrice fifty didst thou lay low with blows (? *abhivlaṅgāir*); that deed of thine (*te* gen.) is highly praised.—yea, even that slight task of thine!" He means that this great performance (which is itself worthy of laudation) was nothing to what the power of Indra could do,—not that the performance was in itself slight. Grassmann's translation misses the point.

yakā, which (miserable person).

< *ya*.

RV. 6. 21. 8—see *rājakā*, § 71.

AV. 20. 130. 20 = RVKh. 3. 15. 10 *iyām yakā ṣalākakā* (see on *iyattakā* § 74) "that wretched little splinter."

Whether an obscene meaning is hidden in the phrase (which is quite likely) or not, the contemptuous idea is plain. See further § 85, Dim. of Obscenity.

76. f) *Adverb*.

ālakam. in vain (contemptuous and imprecatory) < *ālam*.

RV. 10. 71. 6; 10. 108. 7.—Applied to actions which fail, and which are not desired to succeed. In 10. 108. 7 the Paṇis tell Saramā contemptuously that her long journey has been useless (*ālakam*), since she has no power to get the desired cows away from them.

(IV. Pejoratives:) 2. **Imprecatory Diminutives.** (59 words.)

77. These are sometimes called simply Pejoratives, in a narrower sense. But this expression, if used at all, is better applied to this entire category, including the contemptuous and obscene words. I have applied the term *imprecatory* to this subdivision, because these words in *ka* often have just the value of the primitive words accompanied by a curse. This cannot be brought out in translation oftentimes, without over-translating the idea. And of course it cannot be prest too closely in the case of every individual word. Sometimes the idea is more deprecatory than imprecatory. But it always conveys the

impression of something bad,—something that is more or less emphatically disapproved of. And it differs from the foregoing subdivision in that the idea of contempt, if present at all, is at least not prominent, or not as prominent as the idea of hostility or vigorous disapprobation. As we have said, it is sometimes hard to say in given cases whether imprecation or contempt is more strongly felt. Proper names are peculiarly susceptible to the imprecatory *ka*, which casts a slur of some sort or other on the personage so denominated. It is especially common with names of hostile demons.—Besides the other parts of speech represented in the contemptuous *ka* words, we find here one remarkable verb-form containing the suffix. Following are the words which occur.

78. a) *Proper names.*

anantaka, n. of Ćeṣa, a snake-god, Gārṇḍ. Up. 2: see *elāpatraka*.

He was regularly called *ananta*.

elāpatraka, n. of a Nāga or serpent-demon, Gārṇḍ. Up. 2.

< *elāpatra*, id.

(*mahāilāpatraka* [*mahā-el-*] is another Nāga in the same section.) *elāpatra* is the name of a Nāga, found in the Classical Skt.—This chapter is a charm against serpents, personified as demons. A number of them are listed and exorcized by name. Names in *-ka* predominate (only one out of the 12 names lacks the suffix), and in many cases (as in this one) the same names appear elsewhere without *ka*. It is plain that an imprecatory force is felt in the suffix with all of them.

karkoṭaka, n. of a Nāga, Gārṇḍ. Up. 2. See *elāpatraka*.

< *karkoṭa*, id.

kālīka, n. of a Nāga, Gārṇḍ. Up. 2. See *elāpatraka*. No **kālī* occurs.

kulīka, n. of a Nāga, Gārṇḍ. Up. 2. See *elāpatraka*. No **kuli* occurs.

chāyaka, n. of a demon, AV. 8. 6. 21; prob. imprec.

< *chāyā* (only occurs as common n.)

jambhaka, “crusher”, n. of a demon, VS. 30. 16.

< *jambhā* n. of a demon, AV.

taḥṣakā, n. of a Nāga, Gārṇḍ. Up. 2, AV. 8. 10. 29, &c.

< *taḥṣa*, id. (Kāuṣ.)

tāuvīlikā, n. of a female demon, AV. 6. 16. 3. Derivation unknown; prob. imprec. *-kā*.

padmaka, n. of a Nāga, Gāruḍ. Up. 2. See *elāpatraka*.

(and *mahāpadmaka*—same section.) < *padma*. id.

palījuka, n. of a demon attacking women. AV. 8. 6. 2. The proposed etymologies are all merest guesswork; but the *ka* is probably imprecatory.

vāsuki, n. of a serpent-king, Gāruḍ. Up. 2: brother of Āṣa, who is referred to in the section as *anantaka*. *Vāsuki*, by its ending *i* and Vriddhi, suggests a patronymic formation < *vasuka*; but still the *-ki* may have been felt as imprecatory, in the connection where this passage occurs.

ṣaṅkhapulika, n. of a Nāga, Gāruḍ. Up. 2. See *elāpatraka*.

No **ṣaṅkhapuli* occurs.

ṣerabhaka (voc.), n. of a *kimīdīn* or hostile demon. AV. 2. 24. 1.

< *ṣerabha*.

which is joined with it in the same stanza. The opening of the exorcism is *ṣerabhaka ṣerabha!* (vocatives). Some sort of a serpent or dragon is doubtless referred to. The suffix *-bha* indicates that it is some animal; and the radical part of the word is probably connected with *ṣīra*—serpent (Pañc.). In any case the suffix, in this word as in *ṣevrḍhaka*, is plainly imprecatory.

ṣevrḍhaka, n. of a *kimīdīn*, AV. 2. 24. 2.

< *ṣevrḍha*.

(Occurs in the stanza following the one which contains *ṣerabhaka*: this stanza opens in the same way with a corresponding address—*ṣevrḍhaka ṣevrḍha!*—The words are puzzling in this connection, because *ṣevrḍha* is otherwise an adjective of good signification, meaning “favoring, kindly.” It seems likely that the vague assonance of the words with *ṣerabha(ka)* suggested their use in this place: although it would be rather bold to suppose that the charm-maker forgot, or did not know, the regular meaning of *ṣevrḍha* (which was, nevertheless, a rare word). In any case the *ka* is imprecatory.

79. b) *Nouns* (not Proper Names).

armakā, heap of ruins, RV. 1. 133. 3.

< *árma*. id.

āvāsām maghavañ jahi cārdho yātāmátinām vāilasthānaké mahāvāilasthe armaké. On account of the fact that *árma* is only found as a noun, and that the *ka* is plainly pejorative, I prefer to regard *armakā* (as well as *vāilasthānakā* q. v.) as a noun (*árma* + imprecatory idea), rather than as an adjective, which some commentators prefer. Translate:

"Smite down, O Maghavan, the crowd of these witches into the fearful pit, the heap of ruins;—even into the great pit, the heap of ruins." It is indeed somewhat awkward to construe these four successive words as nouns in apposition to one another. But the pejorative notion seems so marked in the verse that I am unable to believe that *ka* is the mere adjective-forming suffix.

açvakā, accursed horse, VS. 23. 18 (repeated TS. 7. 4. 19. 1. 2 &c.).

< *āçva*.

In part of the Açvamedhā-ceremony. The Mahiṣi speaks: *sāsasty açvakāḥ sūbhadrikām kāmṣilavāsīnīm*.—"If I do not perform the revolting ceremony required of me) this damned horse will sleep with (impregnate) the accursed whore (*sūbhadrikā*) who lives in Kāmpīla." She does not want to do what she is compelled to do, but knows that if she does not, the benefits she desires from the horse will go to other women. The imprecatory idea is beautifully clear. Not "little" or "contemptible" horse (which would certainly not be said of the sacrificial beast at this solemn occasion), but "this horse, confound it!"—The *sūbhadrikā* (q. v.) is supposed to personate vaguely any hostile or rival woman.

ūlūka (once *urūka*, Āit Br. 2. 7. 10), owl, RV. 10. 165. 4 &c.

Onomatopoetic base + *ka*: the owl was a bird of evil omen from the earliest times. Lat. *ulucus* as well as *ulula* point to a prehistoric pejorative.

āiḍakā, ÇBr. 12. 4. 1. 4. Eggeling "a vicious ram." < *eḍa*.

on the ground of the suffix, the associations in the passage, and a similar meaning which the word has in Marāṭhī. Otherwise *āiḍaka* only occurs as an adj. < *eḍa*, with 2 *ka*, meaning "of the sheep *eḍa*." I think E. is right in his interpretation: ill-omened animals are dealt with in the passage. But as *āiḍa* does not occur as a noun, and as the vriddhi-vowel is therefore inexplicable, I should emend to *eḍaka*.

kanāknaka, a sort of poison, AV. 10. 4. 22. Etymology unknown. Very possibly contains imprecatory *ka*.

kāsikā, cough (as a disease), AV. 5. 22. 12: 11. 2. 22.

< *kās* or *kāsā*.

In 5. 22. 12 *kāsikā* follows directly upon *kās* and *kāsā* in preceding verses, and the suffix is undoubtedly felt as imprecatory (or pejorative).

kuhaka, rogue, cheat. Māitr. Up. 7. 8.

< *kuha*, id.

kuṣumbhakā, poison-bag. RV. 1. 191. 15. 16. See § 71.

< *kuṣumbha*.

The word may contain imprecatory as well as contemptuous force.

jyākā, accursed bowstring. RV. 10. 133. 1 ff. (repeated as refrain).

< *jyā*.

nābhantām anyakēṣām jyākā ādhi dhānvasu. "Let the damned bowstrings of the others, the scoundrels (our enemies), be smashed upon their bows!" Strongly imprecatory, tho a contemptuously belittling idea is also present to some extent.

In AV. 1. 2. 2 *jyākā* may be used for *jyā* for metrical reasons. Certainly no reason for a dim. use of any sort is discernible.

tīlvaka, a certain plant, Ç. Br. 13. 8. 1. 16; Āçv. &c. < *tīlva*, id. only Lexx.; but cf. *tīlvila* (RV.), "fertile."—In the Ç. Br. passage it is found in a list of ill-omened trees, and the *ka* was probably felt as pejorative, whether it was so originally or not.

dūṣikā, impurity from the eyes. VS. 25. 9 &c.

< *dūṣī*, id.

(*dūṣikā*. Māitr. Up. 1. 3.)

Perhaps originally pejorative, though this force is not prominent in any of the passages where it occurs.

bāddhaka, captive. AV. 6. 121. 3. 4.

< *baddhā*, id.

Used of one bound by sin or by hostile magic. Contains some sort of pejorative notion.

mākaka, a kind of evil demon. AV. 8. 6. 12. Perhaps cf. *makara*, a sea-monster. The suffix is doubtless imprecatory.

manaskā, accursed mind. AV. 6. 18. 3.

< *mānas*.

adō yāt te hṛdī cṛitām manaskām patayīṣṇukām tātas te īrṣyām muñcāmi nīr ūṣmānam nīter iva. In a charm against jealousy.—"That accursed restless mind that is located in thy heart,—from it do I let loose thy jealousy, as vapor from a skin." A brilliant example of the strongly imprecatory *ka*. A translation as a simple dim., "little mind" or the like, misses the point entirely; nor is the word contemptuous. It connotes strong disapproval. *tātas* = *mānasas* (*manaskāt te*.)

rūpakā, AV. 11. 9. 15, evil phantom.

< *rūpā*, shade, shape.

Appears in a group of hostile spirits invoked to torment enemies. Although none of the commentators appear to have

struck this note, it seems to me clear that we have a pejorative (imprecatory) formation to *rūpā*, which has the meaning "specter" in VS. 2. 30, and "visionary appearance" in Ç. Br. 14. 7. 1. 14. The fem. gender is due to the influence of the other names of demons in the *çloka*, all of which chance to be fem. The translation "female jackal" has no basis except the fanciful identification with Av. *urupi*, which is Lt. *vulpes* and should not be connected with *rūpakā*.

vibhītaka, a certain tree, Ç. Br. 13. 8. 1. 16. among a list of trees declared to have evil names. The same word is also used of the nuts of this tree used as dice, and is in that case a simple dim. (see § 62). < *vibhīta*, id.

viṣadhānaka, cursed poison-receptacle, Mantra Br. 2. 7. 3. < *viṣadhāna*.

The same pada in AV. 2. 32. 6 reads *viṣadhāna*.—See *bhinnaka* § 72. where the passage is given and translated.—I have hesitated long before separating the words *bhinnaka* and *viṣadhānaka*, which occur in the same line,—classifying one as contemp. and the other as imprec.: but the predominance of ideas in either case seems to demand it. Both notions are present in both words, to a certain extent.

viṣātakī, n. or epithet of a poisonous plant, AV. 7. 113. 2.

trṣṭāsi trṣṭikā (-asi Ppp.) *viṣā viṣātakyaṣi pāriṣṛktā yāthāsasy ṛṣabhāsyā vaçéva*. "Rough one, thou art an accursed rough one: *viṣā*, thou art *viṣātakī*: that thou mayst be avoided (be a *pāriṣṛktā* wife), as a barren cow (?*vaçā*) of a bull." *Pāriṣṛktā* is a terminus technicus for a disliked and neglected wife; TS. 1. 8. 9. 1 &c.

The imprecatory character of the word *viṣātakī* is fairly clear, but otherwise it is problematic.—*viṣā* occurs as the name of a plant in Suçr., and is probably here used as such, with intention to pun on *viṣā*, poison.—*viṣātakī* is either 1) the name of a poisonous plant, containing or punned upon as if containing the stem *viṣā*, or 2) an epithet of such a plant, or an epithet applied to the woman against whom the charm is directed, or loosely to both, and containing the base *viṣā* or *viṣā* extended by an element of uncertain value plus the imprecatory suffix *kī* (fem. of *ka*). Can the meter have anything to do with the extra syllable -ta-? The Ppp. reading gives perfect meter to the whole

line; but it must be admitted that the additional *-asi* inserted in Ppp. has the appearance of a later attempt to improve the meter, which as a matter of fact far from improves the sense.

A striking parallel to *viṣā*: *viṣātakī* is the Classical Skt. equation *bhaṇḍitakī* = *bhaṇḍī*, also n. of a plant. No **bhaṇḍita* occurs, any more than **viṣāta*. As to the nature of the suffixal element or elements, I cannot pretend to have any opinion further than that the *-kī* is imprecatory.

viṣūcikā, a disease, a form of cholera. VS. 19, 10; TBr. 2. 6. 1. 5.

< and = *viṣūcī*.

visālpaka (Wh.) or *visālyaka* (MSS.), a certain disease. AV.

< and = *visālpā(-lyā)*.

E. g. AV. 9. 8. 5 (*visālpā* or *-yā* occurring in the same hymn.) The suffix is doubtless imprecatory.—Wh., emending to *visālpaka*), derives from *vi*—*Ṣr̥p*. In support of this it may be noted that Suçr. uses *visarpaka* of “a spreading eruption,” like erysipelas; and that the root *vi*—*sr̥p* is found in VS. with the meaning “to be spread or diffused over.”

vṛṣcika, scorpion. RV. 1. 191. 16 &c. See § 71 s. v. *kuṣumbhakā*.

The word may be a primary derivative; if its suffix is dim. at all, it is probably rather imprecatory than contemptuous.

vāilasthānakā, a horrible pit. RV. 1. 133. 3. See *armakā*.

< *vāilasthānā*.

Some commentators consider this word an adj., for which there seems to me still less ground than for holding *armakā*. q. v., to be one.

ṣipavitnukā, a kind of vermin, AV. 5. 23. 7. Probably imprecatory; cf. *ejatkā* (§ 81) in same verse. Derivation unknown.

sarabhaka, a kind of grain-devouring insect. Adbh. Br. (in I. St.) 1. 40. 5. 6. Probably imprec. < *sarabha* (with the animal suffix *-bha*). The word *sarabha* is only found as the name of a monkey (Rāmāṭup. Up.).

sūbhadrikā, courtesan. VS. 23. 18. Cf. “Freudenmädchen.”

< *sūbhadra*.

See s. v. *açvakā*; see also § 67. The suffix in this passage is plainly imprecatory (perhaps also contemptuous), tho it may have been originally endearing. The Mahiṣi uses this epithet as an invective against a (not necessarily definite) hostile or rival woman, whom she fears the horse will favor if she does not perform her disgusting share in the rite.

sphūrjaka, n. of a plant. said to be ill-omened. Ç. Br. 13. 8. 1.

16. *sphūrja*. id., only Lexx. Prob. an imprecatory formation.

80. c) *Adjectives*.

ūnaka, defective, lacking. Çāṅkh Çr. 7. 27. 27. < *ūná*. id.

kāṭuka, sharp, bad, RV. 10. 85. 34 = AV. 14. 1. 29.

< *kaṭu*. id.

kṛtaka, artificial, unreal, false. Gāuḍap. 3. 22. < *kṛtā*. made.

kḥārvikā, mutilated, AV. 11. 9. 16. Imprec. < *kharvá*. id.

kḥārvikāṁ kharvavāsīnīm, of a female demon.

trṣṭikā, rough (imprec.) AV. 7. 113. 1, 2—see s. v. *viṣṭatākī*

§ 79. < *trṣṭā*.

dūrakā, far off RV. passim; AV. 10. 4. 9. < *dūrā*. id.

Seems to be generally used in imprecatory sense: either

1) applied to dangers and enemies, which are desired to be

“at a distance,” implying an imprecation (as RV. 9. 67. 21:

9. 78. 5: AV. 10. 4. 9 of hostile serpents); or 2) if used of

other things, usually with a deprecatory idea. as RV. 10.

58. 1—“Thy spirit which hath departed to a distance (as

it should not have done), to Yama son of Vivasvant, that

we make to return hither”—*yāt te . . . māno jāgāme dūrakām*

(of the soul of a dying man).

nāgnaka, *ikā*, naked. AV. 8. 6. 21—applied to demons.

< *nagnā*.

Also used of wanton women. Imprecatory.

nirmitaka, conjured up, illusory. Gāuḍap 4. 70. < *nirmita*.

“Fixed, arranged,” ppp. of *niś*—*Vmi*.—Of the illusions and

tricks performed by magicians.

patayiṣṇukā, fluttering, unstable (imprec.) AV. 6. 18. 3.

See *manaskā* § 79.

< *patayiṣṇú*.

pāpaka, bad, evil. Ç. Br. 13. 5. 4. 3 &c. < *pāpā* (either acc.).

praticikā. AV. 19. 20. 4—of uncertain mg.; probably imprec.

< *praticī*. fem. of *pratyāñc*. Perhaps a noun—“offense”?

sanakā, old (imprec.) RV. 1. 33. 4 &c.; in this passage at least

strongly imprecatory.

< *sāna*. cf. *senex*.

dhānor údhi viṣṇúk té vyāyann úyajvānaḥ sanakāḥ prētim
īyuh

“From the dhanu they fled away pellmell (*viṣṇúk*—in all directions), the old rascals who give no offering.”¹

¹ Whether the *k* of *viṣṇúk* is also felt as having some sort of pejorative force is doubtful. The adverbs in *-k* (see § 27) do not otherwise show any signs of such value.

81. d) *Participles.*

ejatkā, (subst.) kind of hostile insect, AV. 5. 23. 7.

< *ejant*, trembling.

Prob. imprec.: cf. *çipavitrukā* (§ 79) in same verse.

jyotāyamānakā. AV. 4. 37. 10 (edd.: MSS. -*maka*).

< *jyotāya-māna* pr. p. med.

epithet of demons; imprecatory dim.; "damned little twinklers."

82. e) *Pronominal adjectives.*

anyakā, other (imprec.).

< *ānya*.

RV. 10. 133. 1—see *jyākā*. § 79.

RV. 8. 39. 1 fin.—*nābhantām anyaké samé* (of enemies):

"Let the others, curse them! be crushed, all together!" See also § 74, contemptuous dim.

sarvakā, all (imprec.), AV. 1. 3. 6—9.

< *sārva*.

evā te mūtram mucyatām bahīr bāl īti sarvakām

"So let thy urine be released, out of thee, splash! the whole horrid mess."—In a charm against strangury and retention of feces.

83. f) *Adverb.*

ārakāt, from a distance, Ç. Br. 3. 2. 1. 19 &c.

< *ārāt*.

In the passage named there seems to be at least a deprecatory force discernible; it is said of a woman: "she hath disdained me from a distance (*ārakāt*)," i. e. rejected my advances with laughty scorn.

84. g) *Verb form.*

yāmaki. Çāṅkh Br. 27. 1. "I go basely, disgracefully".

< *yāmi* "I go".

no tv evānyatra yāmaki puṇṇṇulyā ayunam me astīti.

"Nor will I basely go over to another (meter than the *anuṣṭubh*: otherwise one would say) I am like a common prostitute."

Brilliantly explained by Aufrecht—Z. d. d. mgl. Ges. 34 p. 175—6, and since then almost universally accepted.¹—Some Hindu grammarians prescribe the use of the suffix with any finite verb form, and especially with the imperative.—I cannot here go into the very interesting, but more than problematic, questions raised by Aufrecht as to further parallels for this use of the suffix with verbs.

¹ Boehtlingk accepted it at first, but later in the Abh. d. kgl. sächs. Ges. d. Wiss. (23 apr. 1897) attacked it—without sufficient reason, in my opinion.

(IV. Pejoratives:) 3. **Obscene Diminutives.** 13 words.

85. These belong to a certain style of popular humorous composition which crops out in one or two places in the Veda. They are related by their erotic character to the affectionate diminutives on the one hand, and by their debased vulgarity to the pejoratives on the other. Some of the examples also show a sort of playfully contemptuous force. Many of the passages are so filthy that they are scarcely translatable; and indeed most commentators either omit their translation or delicately veil them under decent Latin disguises. The use of a diminutive suffix with such words and in such passages is common to all languages, and easily comprehensible. Adjectives and pronouns take the same suffix by attraction, being colored by the nouns they are connected with (cf. § 60).

The passages of this nature found in the Veda are few but striking. Following are the words which occur.

86. Word list of Diminutives of Obscurity.

alpakā, ikā, tiny, RVKh. 5. 22. 3 = (except pada *d*) AV. 20. 136. 3. < *ālpa*.

*yād alpikā svalpikā karkandhukēva pācyate
vīśantikam iva tējanam yābhyamānā vī namyate.*

An obscene verse: the adjectives *alpikā* and *svalpikā* go not with *karkandhukā* (q. v. § 62), but with the understood subject of the verbs (viz. the female organ).

asakāū, that (obs.), VS. 23. 22, 23 (the verses also repeated with minor variants in other texts, see Vedic Concordance). < *asāū*.

VS. 23. 22—*yakāsakāū cakuntikāhālag iti vāncati āhanti
gabhé pāso nigalgalīti dhārukā.*

23—*yakō' sakāū cakuntakā āhālag iti vāncati vīvakṣata
iva te mūkham ādhvaryo mā nas tvām abhībhāṣathāh.*

Translation of 22—"That little birdie (obs.) which bustles about with the sound *āhālag*—thrusts the phallus into the cleft; the female organ (see *dhārukā*) oozes (or. trembles)."

The verses are both filthy and not entirely clear in syntax. The Adhvaryu addresses the verse just translated to the women, at a certain stage of the Agvamedha ceremony.

The women reply with vs. 23, which is equally ribald and still more confused as to sense: it evidently includes a scoff at the Adhvaryu.

These verses are repeated, in whole or in part, and with minor variants, TS. 7. 4. 19. 3 (*dhāṇikā* for *dhāarakā*); MS. 3. 13. 1; Ç. Br. 13. 2. 9. 6; 13. 5. 2. 4 &c. (see Vedic Concordance).

kārṇaka, AV. 20. 133. 3, an obscene slangy expression applied to the position of the two legs spread apart. < *kārṇa*.

dhāṇikā—the female pudendum—TS. 7. 4. 19. 3 (see *asakāū*, end), AV. 20. 136. 10, for *dhāṇikā*—RVKh. 5. 22. 8; cf. further *dhāna*. < *dhāna* "receptacle."

maṇḍūra-dhāṇikī (voc.). RV. 10. 155. 4. supposed to be a Bahuvrīhi cpd. meaning "having an impure pudendum."

dhāarakā, the female pudendum (slangy-humorous)! < *dhāra* "holder."

VS. 23. 22 (see *asakāū*); Ç. Br. 11. 6. 2. 10.

maṇḍurikā (voc.). AV. 20. 131. 13, emendation of R-Wh. for *maṇḍuriti*, "vile woman" (?), cf. *maṇḍūra-dhāṇikī* s. v. *dhāṇikā*. *muškā*, testicle. RV. 10. 38. 5 &c; du. female organ—AV. 6.

138. 4 &c. Obscene-slangy expression.

< *mūs*. mouse.

yakā, which (obs.). VS. 23. 22, 23 &c.—see *asakāū* < *yā*.

See also § 75.

çakuntakā. iḥā, birdie (obs.). VS. 23. 22, 23—see *asakāū*.

See also § 71.

< *çakūnta*.

çlakṣṇikā, slippery, AV. 20. 133. 5.

< *çlakṣṇā*.

Of the sexual organs in coition: obscene slangy expression.

sulābhikā (voc.). easily won. RV. 10. 86. 7.

< *su-Vlabh* cf. *lābha*.

Addressed by Vṛṣakapi to Indrāṇī in a very obscene passage. See § 16. Whatever the original force of the suffix in this word, it seems probable that it was felt in this passage as having dim. (obscene) value.

(*sr*)*alpikā*, very tiny (of the female organ), AV. 20. 136. 3—see *alpakā*.

hāriknikā, bay mare (dim. of obscenity?), AV. 20. 129. 3—4.

< **hāriknī*, f. of *hārīta*.

(= RV.Kh. 5. 15. 1.)—The whole passage is riddlesome; it is very likely of obscene application.

AV. 20. 130. 11.—RWh. read *énī hāriknikā hārīḥ* for the unintelligible MSS. reading. The same verse in RVKh. 3. 15. 8 has an equally senseless MS. reading. Even the emendation is obscure enough as to its real application,—which may indeed be said of the entire hymn.

V. The Generic Diminutive. (4 words.)

87. By this I mean the suffix *kā* applied to words denoting masculinity and femininity to form derivatives with meanings "male" and "female" respectively. The striking German parallels "Männchen" and "Weibchen" suggest that the suffix was probably diminutive in origin. It may have begun to be used with pet domestic animals, or in a similar way; at any rate the fact is, that "little man" came in Skt. as in modern Germ. to mean "male."

88. Prof. von Schroeder, in his article on the Apālā-hymn (RV. 8. 80), points out that *vīrakā* (vs. 2) must be used in this sense, since it is applied to Indra. Indra was the very emblem of virile power. It was natural enough, therefore, to call him *vīrakā*, "male" *par excellence*, while it would be absurd to suppose that he was addressed directly (the word is voc.) as "O little man!" or "Thou wretched manikin!"

maryakā, RV. 5. 2. 5, likewise means "male," being obviously contrasted with female animals (see the passage); it could not mean "Stierlein," as Grassmann renders it.

89. The feminine counterpart, which neither v. Schroeder nor anyone else seems to have noted, is *dhénukā*, "Weibchen," "female" of any animal or of the human species,—not "milch-cow." This becomes clear upon an examination of the passages where the word occurs.

So Pañcav Br. 25. 10. 23 *acvām ca puruṣām ca dhenuke dattvā*—"giving two females, to wit, a mare and a woman."

Kāty Cr. 24. 6. 8 *tasyām acvapuruṣyāu dhenuke dadyuh*—"in it they offer a female horse-and-human-being" (note *acva-* is not the fem. stem, but common gender. As in German, when "Weibchen" limits a noun, the noun stem keeps its masculine (i. e. common) form; Froschweibchen &c.)

Similarly Ācy. Cr. 12. 6. 30.

AV. 3. 23. 4—in a charm for fecundity in a woman:

sā prasūṛ dhénukā bhava—"Be thou a fruitful female!" (not "milch-cow").

The word *mahīlukā*, AV. 10. 10. 6, used as an epithet of the cow, probably means nothing more than "female," "Weibchen," being derived from *mahilā* "woman."

The vowel *-u-* in *mahīlukā*, instead of *-ikā* which we should expect, is apparently due to the analogy of *dhénukā*.—The lengthening of the *i* in the second syllable is an instance of that widespread tendency to iambic cadence which is especially

marked in the language of the Veda. There are a number of parallels which might have been pointed out within this very treatise: but they are mostly self-evident.

VI. Diminutive of Femininity.

90. From the diminutive and endearing uses of the suffix was developed a teudeucy of the derivative *kā* (*ikā*) to be used merely as a mark of the feminine gender, when the primary word either had common gender, or its feminine character was not marked by its ending: or, when the primary word was grammatically masc. or neut. and the writer desired to treat it as a fem. Sometimes there is to our minds no very clear reason for putting the word in the fem. gender; but that does not alter the facts, nor greatly weaken our position. It is sufficient that we frequently find a fem. noun in *kā* (*ikā*) from a masc., neut. or common noun without *ka*, and without any other noticeable difference between the two.—The association of the diminutive idea with femininity is not rare in all languages and periods, and is easily comprehensible.—There are few examples in the Veda,—as is true also of the endearing dim., to which this is closely related. In the later language it is commoner, though never very common.

91. The examples here given are not exhaustive, even for the Veda, but they are some of those which show most reason for the use of the fem. diminutive.—Whether *dhēnukā* and *mahīlukā* (see § 89) have any right to be counted here is very questionable. Certainly this force of the suffix *ka* is quite distinct from the Generic Dim., to which those two words belong. (8 words.)

pradātrikā, giver (fem.). MS. 2. 5. 7. < *pradātṛī-*, giver.
candrīkā, moon (as fem.). Rām. Up. 24. < *candṛā* (masc.).
kūṣṭhikā, dew-claw, spur? AV. 10. 9. 23 &c. < *kūṣṭha*, eutrails.
madhyamikā, middle finger. Prāṇ. Up. 1. < *madhyamā*.
pravalhikā, an enigma.—challenge; ĀitBr. 6. 33 &c. < *pravalha*.
nyastikā, n. or epithet of a plant, AV. 6. 139. 1. < *nyastā*.

The plants (rushes) were "thrown down" (*nyastā* < *ni-Vās*) as a seat for the bride in the marriage ceremony. Cf. AV.

14. 2. 22 where *ni-Vās* is used in connection with the same performance: and see my paper on the subject.—I. F. 24. 291.

kūṭhārikā (in *pāda-k.*, a position of the feet, CGr. 4. 8),

< *kūṭhāra*: "ax," or "little ax." No particular sign of dim. use.

bhūmipācakā, a plant, = *-ṣa* (masc.).—Sāmav. B. 2. 6. 10.

(Continued in the next number.)

Notes on Village Government in Japan After 1600, II.—

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Abbreviations.

Ish 105. *Ishida Mitsunari*.

KSK 103. *KAGA SHŌ-UN KŌ*.

Rel 106. *Reki-shi chi-ri*.

Sho 104. *Shō-un kō shō-den*.

Notes.

(1) *Dependence of power on peace*. It is generally held that, shortly before his death. Tokugawa Ieyasu solemnly enjoined the great barons who had lately become his vassals, that the best among them should supersede his successor, should the latter fail in maintaining justice and peace in his government of Japan. For. said he. [quoting an old saying], the world was the world's world, and not one man's. *To*. IX. 826.

It matters little if this story is historically untrue, so long as the whole life of Ieyasu as a ruler and the whole structure of his system of administration substantiate, as they must be said to do, the sentiment implied in the alleged remark.

The same sentiment also animated many an able baron in the government of his fief. Uesugi Harunori (1751—1822), lord of Yonezawa, on yielding his position to his son Haruhiro. in 1785, instructed the latter

in the following terms: "The State [i. e., fief] has been transmitted by our forefathers, and should not be exploited for selfish purposes. The people belong to the State, and should not be exploited for selfish purposes. The lord exists for the State and the people, and not the State and the people for the lord." YZS, 355. Matsudaira Tsunatoshi (1644—1724), lord of Kanazawa, continually reminded his vassals that his fief had been entrusted to his house by the suzerain (the Tokugawa) and hence was not its private property, and that therefore the suzerain's laws should be observed, and the fief should be governed with great care and with justice. *To*, XIV. 300. Both these lords were regarded models of good administrators.

It would perhaps be truer to observe that Ieyasu and the two lords above mentioned, as well as other successful suzerains and barons, were all deeply influenced by the well-known political philosophy of China that Heaven appointed the prince for the good of the people, than to say that Ieyasu was the sole example that the others followed. (Cf. the author's *Early institutional life of Japan*, 1903, pp. 153—184.) To the latter, however, the Chinese ideal must have seemed the more commanding for the former's practical demonstration of its value. Reinforced by these worthy examples, it was seldom forgotten during the two and a half centuries of the Tokugawa régime that the lord's power should depend upon peace of his people. As for the deeper significance in this régime of the persistent idea of peace, we shall seek to find it in some of the following notes.

(2) *Political wisdom of Japan and China*. It is beyond the scope of this paper to note with what zeal Ieyasu collected classical and historical works of China and Japan, encouraged their publication and study, and himself derived from some of them a vast deal of practical wisdom. (E. g., *DSR*, XII, xiii, 877, 935—939.) After him, encouragement of learning became a traditional policy of his house, as is amply illustrated in Kondō Morishige's *Yū-bun ko-zhi*, 1817. (*Kon-dō Sei-sai zen-shū*, ed. Tokyo, 1906. II. pp. 99—348). The example of the suzerain was eagerly followed by the barons throughout the country. See the *Ni-hon kyō-iku shi-ryō*, edited by the Department of Education, Tokyo, 2d ed., 1903—1904, 9 vols. and supp.; Satō Sei-zhitsu, *Ni-hon kyō-iku shi*, Tokyo, 1903, pp. 267—480; articles by Nakamura Katsumaro, in *Shz.*, XVIII, Nos. 6, 8, 11; XIX. Nos. 3, 5, 6; (1907—1908).

Ambitious barons vied with one another in the encouragement and stimulus they gave to the study of the political-ethical teachings of China among their vassals. Schools were established, scholars famous throughout Japan for their learning were appointed as teachers, and the barons often personally supervised the work or even took part in the intellectual contest. It would be a mistake to suppose that these were merely literary pastimes with little relation to actual government. What was now studied was hardly the purely literary part of Chinese learning, such as was once in vogue among court nobles of Japan before the tenth century, but rather that remarkable combination of philosophical, ethical, social, and economical wisdom in the most condensed form which characterizes the purer teachings of Confucianism. Some of the simpler lessons of

the tenet were so intensely practical and so salutary in their effects on rural administration, that their learning sometimes exerted the most direct and profound influence on the welfare of the people. It was precisely for this reason that scholars of the right kind became powerful forces in the feudal society, and their teaching was sought by great barons with humble eagerness and had a large formative influence upon their careers as rulers. It is safe to assert that there were some scholar councillors of this description behind every lord noted for wise government during this period. The cases of Kumazawa Banzan, Arai Hakuseki, Muro Kyūsō, Hosoi Tokumasa, and others, will readily be remembered.

It is highly significant that political and social ideas and practices of China, especially under the Ch'ou dynasty, as were embodied in classical literature, exercised such a profound influence upon the feudal rulers of Japan after 1600. Their conception of good administration and of the rights and duties of the prince and subjects, and of the moral and economic principles of society, was, in its important features, thoroughly Chinese. The older and purer Confucian ideas, introduced into Japan from ten centuries before, now seemed not only to have become the subject of an absorbing study, but also to have given a model of social order and government. It is only after these ideas are mastered, and not before, that one may understand the sources and the force of most of the policies which guided such good suzerains as Ieyasu (1543—1616), Iemitsu (1604—1651), and Yashimune (1684—1751), and such exemplary barons as Tsugaru Nobumasa (1646—1710), Hosokawa Shigekata (1718—1785), Mito Harumori (1751—1805), Uesugi Harunori (1751—1822), and Matsudaira Sadanobu (1758—1829). Cf. e. g., *To*, XIV. 191—387; *Tnk*, 25 ff., 43 ff., 64; *Gi*, I, 10—11, 13—15, 30; II, 5; III, 1; *Zo*, I, 1030; *YZS*, 13—14, 261, 867—898; *Shr*; articles by Prof. Mikami Sanzhi in *Shz*, XVII, 1085—1125 (1906); XIX, 1—30 (1908). For this condition, neither the example set by the suzerain nor the intellectual zeal and receptivity of the baron would afford a satisfactory explanation. The reason was probably much deeper. It may be possible to demonstrate that many conditions in ancient China and modern Japan being singularly similar to each other, ideas and institutions born in the former appealed to the latter with peculiar force. It is an astounding fact in history that an old society should, after the lapse of thousands of years, find in another land or a miniature of its federal government sustained by agriculture and ruled by military forces, and teach it lessons of its own experience by means of the most concise and lucid of human speech.

(3) *Adaptation.* A careful examination of the Tokugawa régime is apt to reveal very little originality in its details. They were based either on conditions then in existence, on models found in Chinese literature or in the earlier history of Japan, or on modifications or combinations of these conditions and examples. The merit of the general system must be sought rather in its mastery of details, solidarity, and delicate balance, than in its originality.

(4) *Rulers and ruled.* Mencius quotes an old saying: "Some exercise the mind, others exercise physical strength, [some scholars say that this is the extent of the old saying and the following is Mencius's comment,

but the general opinion is otherwise]. Those who exercise the mind rule over others, and those who exercise physical strength are ruled over by others. Those who are ruled support others, and those who rule are supported by others." He then adds: "This is the common principle of the world." (故曰·或勞心或勞力·勞心者治人·勞力者治於人·治於人者食人·治人者食於人·天下之通義也) 孟子, chapter 滕文公, I, No. 4.

(5) *Warriors*. This English term is applied in this essay to the *bu-shi* (武士) class in the broadest sense of the word, that is, including the lords and vassals of all degrees, from the suzerain down to the lowest foot-soldier.

Samurai is expansive, and though it may be conceived as identical with *bu-shi*, it is even more susceptible than the latter of a narrower construction. The term *bu-ke* (武家) is used rather in contrast to *ku-ge* (公家), civil nobility, and may perhaps be rendered as military nobility.

(6) *Distinction between warriors and peasants*. The wearing of two swords, one longer than the other, and the bearing of a family name in addition to his personal name, were privileges denied to the commoner, but granted to the warrior as badges of his noble birth. There were, however, other and more significant marks of distinction. The peasant owed taxes both regular and irregular in nature; the warrior as such, namely, when circumstances had not reduced him to the position of a half-peasant, paid, if any, fewer and lower taxes, and, when his position was high, owed nothing but feudal aids and charges which never entirely lost the appearance of being voluntary contributions. The warrior's proper service was in government and warfare, and was considered noble, while that of the peasant was menial, and was rendered in terms of rice, money, and labor. That the laws governing the conduct of the two classes were largely apart from one another is well-known, the difference not being the least conspicuous in the forms of punishment inflicted on culprits of the classes. The peasant criminal was, for example, seldom allowed to disembowel himself for a capital offence, as was the warrior, but his death penalty consisted in decapitation with or without exposure of the head, in burning, or in crucifixion, according to the gravity of his offence. Cf. *Tk*, IX, 16; *Ksd*, 947; *KR*, II, No. 23. The education of the warrior emphasized the importance of martial arts, of honor, courage and endurance, and of learning in Confucian literature; that of the peasant inculcated passive obedience. He was not encouraged to study Chinese classics, as they contained political discussions and threw light on history. Even his practice in fencing was often discountenanced in later years of the Tokugawa period. The very views of life, and even the esthetic taste, were often radically different in the two classes.

The division was sharp, but the barrier was not insurmountable. Many a peasant, as well as merchant, was, either for his distinguished birth or service or for his exceptional virtues, honored with the special privilege to carry one or two swords for life, or to assume a family name for all time. *To*, XIII, 661; *Zo*, I, 620; *KRE*, 205—6; *Jh*, VII, 50—67. This distinction, however, hardly extended beyond the mere

external sign, which symbolized a quasi-warrior, but not a real warrior. Was it impossible to become the latter? Although it was often decreed that the warrior should not adopt a peasant's son as his heir (e. g. *DSR*, XII, ix, 223), cases of such adoption were not absent. The social mingling of the two classes took place in many a fief, notably in Satsuma, Tosa, and Yonezawa, where warriors continued or were encouraged to have their landed estates, despite the fact that the mutual contact was sometimes lamented as detrimental to both classes. E. g., *YZS*, 533, 571—572, 583—584, 748—750, 821. Peasants, however, never entered into the warrior class to the extent that the merchants did at Edo.

(7) *Population*. The official figures of the population of Japan, exclusive of the warrior classes, between 1726 and 1847, range between 25 and 27 millions. *SCR*, V, 7—8; *Nfz*, III, 15. Of these numbers, a preponderant majority consisted of peasants, as may be inferred from the following instances. In the fief of Mito, of the population of 229,239, in 1797, 221,900 were peasants, and 7,200 merchants. *Kw*, I, 1, 3—4. In Yonezawa, in 1776: 24,061 warriors, 80,488 peasants, 16,099 merchants, and 1,354 priests and others; total, 122,102. *YZS*, 228. Here the proportion of the warrior and merchant classes is unusually large. About 1830, in a fief in Kyūshū: 88,036 peasants, 18,321 merchants, 738 priests and others; total 107,095, exclusive of warriors. *Km*, VIII, 29. The warriors in the whole of Japan could not at any time have much exceeded 350,000, or, about 2,000,000 with their families and servants. (Cf. *SCR*, V, 1.) Also see Notes 135—137, below.

(8) *Suzerain*. This term is used throughout this study to indicate the *Shō-gun*, which is an abbreviation of *Sei-i tai shō-gun* (征夷大將軍, Great general for subduing alien races on the frontiers). English writers about the time of the fall of the Japanese feudal government were wont to employ the word Taicoon (*Tai-kun*, 大君, great lord) for the same personage, *Tai-kun* being one of the several honorific titles by which the *Shō-gun* was popularly designated. A fuller discussion of this and other high offices of the Tokugawa government must be reserved for a later study of the feudal classes.

(9) *Intendants of the Suzerain*. Those were generally called *Dai-kwan* (代官, deputy-officials), only a few of the more important incumbents being especially termed *Gun-dai* (郡代, district-deputies). In early years of Japanese feudalism, the *dai-kwan* was not a regularly constituted official, but was exactly what his provisional title indicated, namely, a deputy or agent of any official whatsoever, not excepting the suzerain's Regents (*Shikken*, 執權). The Suzerain himself was sometimes popularly called *Kwan-tō no Dai-kwan*. Deputy in *Kwan-tō* (i. e., provinces about Edo), he being considered the deputy-general of the Emperor. In the sixteenth century, agents of the provincial governor-general (*shu-go*) and of the local comptroller (*jī-tō*) were often called, respectively, *shu-go-dai* (守護代) and *jī-tō-dai* (地頭代). The former of these two classes of agents were, in distinction for their greater importance than the latter, sometimes designated Great *dai-kwan* (大代官). *Kōri dai-kwan* (郡代官), or *Kōri bu-gyō* (郡奉行), *kōri* (*gun*) here meaning, not the definite territorial unit of that name, but

district in a loose sense. The term *dai-kwan* remained as the general name for all local agents, but also assumed a specific meaning as *ji-tō-dai*. The Tokugawa rulers, as was customary with them, accepted the current terms *dai-kwan* and *gun-dai* (abbreviated from *kōri dai-kwan*), but clearly defined their office, so far as the sphere of the Suzerain's direct rule was concerned, as his Intendants appointed from among his hereditary vassals to take charge of financial and judicial affairs of most of his Domain-lands. *Bu-ke myō-moku shō*, 武家名目抄, [cyclopædia of feudalism], compiled by Hanawa Hoki-ichi, 塙保己一 (1746—1821), and others, (in 441 chapters), ed. Tokyo, 1903—1905, chap. liii—liv, 613—630; *Dch*, Introduction, 75, 82, 83—84; *Ksd*, 840, 1612; *Ish*, 105, 106—107, etc.

The *gun-dai* were merely the most important *dai-kwan*. Their number was originally four (in Kwantō, Hida, Mino, and Kyūshū), but in 1792 the first was split into five *dai-kwan*, and later reorganized into three *gun-dai*. The official duties of the *gun-dai* were identical with those of the *dai-kwan*. *Tk*, I, 6—9; *Rch*, XIII, 419.

These duties were most multifarious. The *dai-kwan* received from the villages and transmitted to the Suzerain's government report on the census and the religion of the inhabitants, saw to the detail of assessing, collecting, and forwarding taxes, and supervised public works, the care of the forests, the tilling of new land, and the restoration of damaged land. His judicial powers were limited: he could on his own responsibility inflict only the penalty of beating, but should report on all graver offences to the central feudal government of Edo. It was morally binding on him to oversee the behavior of the peasants, and admonish them against extravagance and misdemeanor. He had extraordinary duties to perform on special occasions which concerned the person of the Suzerain, and in case of a riot or warfare. *Tk*, II, 27—31; IX, 17; *Smc*, 52—58.

His military powers as well as duties were, however, practically nil, for he was primarily a local administrator in control of peasants' affairs, and not a baron. He, as an Intendant, owed no knights' service, nor was the district to which he was appointed his fief. Not even hereditary was his post in a given district, only five out of the more than forty Intendants remaining in the same localities for generations. All Intendants received salaries which were paid out of the central treasury of Edo, and which were graded according to the relative importance of their districts. They were, with half a dozen exceptions, responsible to the financial department of the Suzerain's government, for, indeed, their functions, as well as their previous training, were first and foremost fiscal: they collected taxes from the people and delivered them to Edo, and observed other details of local government largely in order to secure the successful transaction of this essential business. *Tk*, I, 6, 9—11, 20, II, 3; *To*, XIII, 890; *SZ*, XV.

This is a point of the greatest importance in the whole range of the Tokugawa system. It may be seen that Japan's régime after 1600, when her feudal institutions were brought to their highest perfection, was really in part un-feudal; that is to say, in so far as the Suzerain's own domains were concerned, their administration was put in the hands of

his paid servants removable at will. It will be seen later that in many a baron's fief, also, similar conditions prevailed.

To return to the Intendants. In assuming the capacity already described, he took an oath that he would faithfully fulfil his official duties, and at the annual meeting in Edo of all his colleagues he listened to the reading of special instructions to the *dai-kwan*. *To*. XIII, 315—319, 846—847, 959, 1082, 1099; *XV*. 780; *JG*, III, No. 1; *I*. No. 1; *Jt*, I, i, 9—12; *TKR*, I, iv, 193—248. The following are instructions dated 1680:—"The people are the foundation of the country: the Intendant shall always study their hardships, and see that they do not suffer from hunger and cold. When the country is prosperous, the people are apt to be extravagant, and when extravagant, they are apt to neglect their calling; see, therefore, that they are not extravagant in food, clothing, and dwelling. The people are suspicious of officials distant from them, and then the officials suspect the people: see that neither of them entertain suspicion of the other. The Intendant should always be frugal, know details of agriculture, and carefully observe that the taxes are justly levied. It is essential that the Intendant should not leave his affairs to his subordinates, but undertake all things in person, and then all his subordinates will be dutiful. The Intendant and his subordinates should under no circumstances employ people of their district for private ends, or borrow from them or lend them money or rice. Always note the condition of rivers, roads and bridges, and repair them while the damage is still small; if there is a quarrel among the people, investigate it before it becomes serious, and, if it may be adjusted privately among the disputants, see that it is settled without partiality or trouble to any party. Always observe that all affairs are diligently settled, and especially that there are no arrears in the public accounts, so as to be ready for the possible transfer of the Intendant to another district or giving over of his district to a baron." *Tk*, II, 26—27.

It was customary with the Intendant of a distant post to stay in Edo and only periodically visit his district. In that case, one or more of his subordinates presided at the local office. These and other subordinate officials (*te-tsuke* 手附, *te-dai* 手代, *sho-yaku* 書役, etc.), many of them hereditary, were remarkably few in number, and served long years of hard work. They perforce led the most frugal and monotonous life, and in fact, whatever their illicit incomes, their regular salaries were mere pittance, the lowest clerks receiving nothing. *Tk*, I, 14—41; II, 3—4, 11—13, 25. The Intendant received a special small allowance, besides his regular salary, for the maintenance of his assistants and local offices. *To*, XIII, 846—847, 1082; *XIV*. 751; *XV*. 789; *Tk*, II, 13—25; *Jt*, II, i, 25—32; *Jo*, VI, 4—8; *Jh*, V, 6—11; *TKR*, I, iv, 249—271. From the financial stringency of the Suzerain's government, it was urgent that his Domain-lands should yield the maximum revenue with the minimum expenditures.

The following is a table of all the Intendants in 1867, with the relative importance of their districts in 1838 as shown in their assessed productivity in terms of rice. The *gun-dai* have *G*, and, hereditary *dai-kwan*, *h*, after their family names. 1 *koku* is nearly equal to 5 bushels. From *Tk*, I, 11—13, 20—24; II, 7—9.

Family names	Main office at	Number of paid assistants	Assessed productivity of the district in 1838
			kokū
Kobori. <i>h</i>	Kyōto. Yamashiro	46	96,470
Sumikura	"	10	246
Kimura	"	7	30,807
Sumikura	"	20	? 20,531
Nakamura	Gojō. Yamato	18	61,732
Saitō	Ōsaka. Settsu	24	79,417
Uchimi	"	20	72,607
Ishihara. <i>h</i>	Ōtsu. Ōmi	24	101,883
Tadara. <i>h</i>	Shigaraki. Ōmi	39	55,354
Iwata. <i>G</i>	Kasamatsu. Mino	28	100,154
Tanaka	Nakaidzumi. Tōtōmi	25	63,958
Nakayama	Shidzuoka. Suruga	21	80,104
Ogasawara	Kōfu. Kai	25	84,540
Andō	Ichikawa. Kai	21	79,682
Masuda	Isawa. Kai	26	57,829
Egawa. <i>h</i>	Nirayama. Idzu	38	84,117
Imagawa	Edo. Musashi	24	134,923
Sasai	"	23	112,447
Ōtake	"	21	
Matsumura	"	19	
Kinura. <i>G</i>	Iwahana. Kōdzuke	26	
Kawadzu. <i>G</i>	Fusa. Shimoōsa	18	
Oguri. <i>G.</i> ; <i>h</i>			? 681,642
Fukuda	Edo	22	
Hōjō	"	17	
Yamauchi	Maoka. Shimodzuke	28	
Ogawa	Edo	13	
Tada	Hanawa. Mutsu	14	57,296
Kuroda	Kōri. Mutsu	16	86,249
Mori	Onahama. Mutsu	14	83,783
Yamada	Shibahashi. Dewa	18	78,099
			69,957 + 147,676
Matsumoto	Nakano. Shinano	21	54,298
			69,574
Niimi. <i>G</i>	Takayama. Hida	28	114,052
Ōkusa	Idzumozaki. Echigo	16	71,388
Shinomoto	Midzuwara. Echigo	17	106,148
Miyazaki	Kumihama. Tango	15	67,744
Sakurai	Kurashiki. Bitchū	19	63,703
Yokoda	Ikuno. Tajima	14	74,183
Nabeta	Ōnori. Iwami	14	78,695
Kubota. <i>G</i>	Hida. Bungo	28	117,534
Takagi. <i>h</i>	Nagasaki. Hizen	17	36,677
41		894	3,281,578

(10) *The Suzerain's domain-lands and the barons' fiefs.* During the Tokugawa period, the importance of any territory was measured, not by its total extent, but sometimes by its area under cultivation, and much oftener by the officially determined productive capacity of this area stated in terms of *koku* (4.963 bushels) of rice. The total cultivated area of Japan, which had gradually increased, was officially stated at the end of the feudal rule, as 3,260,000 *chō*, or nearly 8,000,000 acres, although the actual area seems to have been nearer 12 than 8 million acres. *Chō*, 100—101. The total productive capacity of Japan, as officially accepted, increased from 18.5 million *koku* about 1600 to 25.8 about 1700, to 30.4 about 1835, and to 32.0 about 1868. *Koku-daka kō.* in *Dse*; *SCR*, V, 23, 38, 49; *Deh.* Introd., 89, 94. When the total was about 26.4 million *koku*, it was apportioned, or, to be a little more precise, the lands which were estimated to produce the various amounts or their equivalents were distributed, approximately as follows:—

1. The Suzerain's Domain-lands under the Intendants	3.28 million <i>koku</i>	
2. The Suzerain's Domain-lands in the larger cities and other special places, which were under his special agents or temporarily entrusted to neighboring Barons	.93	"
3. The three Tokugawa branches of Tayasu, Hitotsunbashi, and Shimidzu	.30	"
4. The Suzerain's smaller immediate vassals, all below 10,000 <i>koku</i>	2.60	"
5. The Barons' fiefs	18.86	"
6. The Imperial House	.10	"
7. The civil nobles	.04	"
8. Religious houses and persons	.31	"
<i>Tk.</i> II, 7—11. Cf. <i>SCR</i> , V, 51, 55—56.		

Of these, the Suzerain's Domain-lands (Nos. 1 and 2 in the table) were known as *kō-ryō* (公領 or 公料, public domains or possessions,—the word 'public' applying, in the usage of the period, to all things pertaining to the government of the Suzerain, as distinguished from the barons'), and the barons' fiefs (No. 5) were called *shi-ryō* (私領, private domains). The former were sometimes designated *go-ryō* (御領, *go* being honorific), and were popularly styled even as *ten-ryō* (天領, literally, heavenly domains), so exalted was the Suzerain in the eyes of the common people.

The individual baron's Fief was popularly designated, if it covered an entire province (or *kuni*, 國), by the name of the province, but more frequently, even in that case, and of course when the fief was a part of a province or extended over several provinces, by the name of the central castle-town. Occasionally, the family name of the baron was used in denoting the fief. In all these instances, the name was followed by the word *han* (藩, original meaning: frontier defense, march); as, Nihonmatsu *han*. The same word was used also as an adjective; as, e. g., *han-shi* (藩士, warriors of the fief) and *han-shu* (藩主, lord of the fief). To all intents and purposes, *han* may be translated as 'fief'. A grievous usage has grown up among native and foreign writers in English to render the word with the most inappropriate and misleading term.

clan, a practice which every lover of truth should strongly combat. The *han* was a territorial division, which retained its name independently of any change in its population, so long as it existed as an undivided fief. If such word as *ka-chū* (家中, in the family) was used to designate the immediate vassals of the baron of the *han*, its meaning was figurative, denoting that the vassals, who formed a minority of the population of the *han*, and who were never all of one clan, had sworn fealty to the successive lords of the baron's house, which itself was seldom permanent. There is not one leading feature of the *han* justifying the use of the word 'clan'.

(11) *Barons*. These include all the immediate vassals of the Tokugawa house owing military service and receiving in fief pieces of land valued above 10,000 *koku* for each man. There were 194 Barons in 1614, 240 in 1700, and 266 in 1865. At the last named date, the largest fief (Kanazawa) was officially registered as productive of 1,022,700 *koku*, and the average of the fiefs, about 70,000 *koku*. The class titles of the Barons in official documents were *sho-kō* (諸侯 princes) and *man-goku i-zhō* (萬石以上, those above ten thousand *koku*). The familiar title *dai-myō* (大名, originally, holder of a great *myō-den*, land bearing the name—*myō*—of the owner, original cultivator, or some other person or thing) was only half official as a general name for the barons. Sometimes, however, a distinction was made in public documents between *dai-myō* and *shō-myō* barons (holders of greater and lesser fiefs), but the line of demarcation is obscure and was probably never officially defined. *Ksd*, 1637 ff., 2244.†

(12) *Baron's Bailiffs and land-holding vassals*. Despite the great diversity of detail in the village administration of the various Fiefs, the general outlines were drawn after the model of the Suzerain's Domain-lands. In the ordinary Fief, there were districts given in fief to vassals, besides those reserved for the Baron. These were often called, respectively, *kyū-nin mae* (給人前) and *o-kura-iri* (御藏入). (*Ish*. 108; *SDS*, I, 16.)

The management of the vassals' fiefs rested sometimes with the vassals themselves, (as was the case with the *hō-kō-nin mae*, 奉公人前, at Sendai; *ibid*., 18), but oftener with village-heads with or without special agents placed above them. The ancient term *ji-tō* (地頭) was applied very loosely to indicate either the holding vassals or their agents. The vassals, so far as their rural affairs were concerned, or, at least, their agents and village-heads, were usually under the supervision of the Baron's Bailiffs, who in these instances had general control over all local affairs. *SDS*, I, 9, 10; II, 86, 104; *DSR*. XII, xi. 361. 363; vi. 586; *Gi*, I, 3; *BK*, I, 4—5.

These Bailiffs' business, however, concerned primarily the districts reserved for the Baron himself. They were nearly always of the warrior class, but, like the Suzerain's Intendants, did not hold their respective districts in fief, for they were paid servants usually removable at will. *YZS*, 107—108; *NTK*, 404. In many Fiefs, there were some Bailiffs who held their spheres, or at least regarded them, as in fief (cf., e. g., *YZS*, 565), but the tendency was toward making these cases exceptional.

The Baron's Bailiffs were generally of two grades, the names of which varied considerably in the different Fiefs. Perhaps the commonest grades

were *kōri bu-gyō*, 郡奉行. (other names being *gun-dai*. 郡代. *gun-tō*. 郡頭. *gun-zhi*. 郡司) and *dai-kwan*, 代官, (also *gun-dai. kōri moku-dai*. 郡目代), the first higher than the second. Some of the larger Fiefs, however, had three or more grades, while the smaller had only one. *Kw*, II, 3; *Zo*, I, 1030; *Gi*, II, 24—25; *Mkr*, throughout.

Instructions to the Bailiffs were necessarily of the same nature as those given to the Suzerain's Intendants.

In the same manner that the Suzerain's government occasionally despatched special inspectors to observe conditions of rural administration (*To*, X, 610, 622, 661—662; XI, 495, 509, 596—599, 826; XII, 47—48, 64; XIII, 60, 67—68, 174, 237—238, 439, 444, 481—483; XIV, 410—414; XV, 11—14; *ZO*, I, 43; III, 1374; IV, 103), so also many a Baron sent about officials with similar missions (e. g., *YJS*, 98, 104—107, 285—286, 525—526). The practical value of these inspectors, as likewise of the general instructions to the Bailiffs, was often problematical. *Mi*, I, vi, No. 41. See Note III, below.

(13) *Village*. The villages, or *mura* (村), were the smallest territorial units, and as such had a long and important evolution in Japanese history. Under the Tokugawa, they differed greatly in size and importance. The average *mura* was a historic entity composed almost exclusively of peasant families. The number and fiscal values of these families seldom underwent abrupt changes, and, as we shall see later, the productive capacity of each village was officially estimated and registered at an early date of this period, and was not revised except under an urgent necessity. Its agricultural character, its historic origin, and its comparative unity as a fiscal corporation, are the three dominant characteristics of the normal *mura* of the Tokugawa epoch.

The total number of *mura* in Japan was, in 1834, 63,493. Arai Aki-michi, *Ni-hon koku-gun en-kaku gō*, 1860 (*SCR*, III, 9).

It is interesting to note that, all through the Tokugawa period, the extent of many *mura* in sparsely inhabited parts or on provincial borders remained more or less indefinite. *Dch*, introd., 93. These villages were in the historic process of finding themselves, which others had already gone through. They also emphasize the truth that a *mura* was often an aggregate of peasant families, or, more exactly, of peasant holdings and their fiscal values, rather than a mere area of territory. When the population grew dense in proportion to the land of the village, the latter's limits would be determined. There also appears to have existed some resisting power of the *mura* against arbitrary division or combination, so strong was its historic character. Where *mura* were altered, their old names persisted as the names of hamlets or homesteads (*aza-na* 字名, *sage-na* 下名), for historic names were too dear to be forgotten. (Cf. *Tnk*, 206.) When extensive areas were tilled and inhabited, they formed either distinct and seldom totally assimilated parts of the mother villages, or independant villages. *Dch*, Introd., 92.

Many villages preferred to *mura* other unit-titles which they had borne, or titles expressive of their geographical positions or genetic relations. *Ri* (里), *gō* (郷), *shō* (庄), and *makiri* (間切—in Ryū-Kyū), are illustrations of the former, and *tsu* or *minato* (津, 湊, harbor). *hama*

(濱, beach), *shima* (嶋, island), *san* (山—Buddhistic), *uke* (受—from the Chinese unit *shōu* 受?), *de* (出, offshoot), and *sabaki* (捌, rule) and *kaito* (垣内, 貝戸, 加井戸, separated), of the latter. *Ibid.* 90—93; *Gei-han tsū-shi*, II. 479. 484. &c.

It would be extremely interesting to study, from old maps and from all the actual examples, the various types of settlement and of the arrangement of houses in the historic villages of Japan, to note the geographical distribution of these types, and to infer from these data the probable historic and economic reasons of the variation. It is, of course, to be expected that, even aside from the changes that have taken place since the end of the feudal régime, some villages are too old and too much altered from their original forms to be reduced to types or to lead one to safe conclusions as to their evolution. However, it is easy to see that there must be a great number of other villages in which may be traced with more or less clearness their original types or their subsequent alterations. Scarcely any extended study has yet been made in this fruitful field of research. One geographer has barely enumerated eight different types in existence, as follows:—1. a single row of houses on one or either side of a road or a river or on the sea-shore; 2. parallel rows of houses in similar positions; sometimes on ascending or descending terraces; 3. two such single or parallel rows intersecting each other at an angle; 4. a more or less circular or arcuated distribution of houses around a fortress, a temple, a great estate, or a small harbor; 5. a linear distribution with its one end closed against further extension, for instance, by an important temple, which is usually situated before a thickly wooded spot; 6. villages in which single houses are scattered with no system of arrangement; 7. those in which houses are found in small groups on advantageous spots; and 8. those in which houses are arranged and roads built in accordance with some preconceived regular geometrical plans. (Makiguchi Tsunesaburō. *Zhin-sei chi-ri gaku*, 3rd ed., 1903, pp. 904—907.)

Also see Notes 15 and 22, below. The striking case of the *Iya-yama* villages of *Iyo* deserves a special mention.

(14) *The Iya-yama villages in the province of Iyo* (伊豫祖谷山). About 180 square miles in extent, and situated on the sinuous course of the river Matsuo, the *Iya-yama* villages were completely protected from the outside world by high mountains and deep ravines. The latter were crossed over only by means of ropes made of twisted vines, for it was impossible to span the wide gorges with bridges. In the fourteenth century, this place was found to be occupied by a few hardy warriors with their retainers, who resisted encroachments, and stood against a powerful baron when all the rest of Shikoku had succumbed to him. In 1585, Iyo was given in fief to Hachisuka, but it was not till 1590 that he extended his authority to this part of the province. The chiefs either fled or were killed rather than surrender, and the region was well-nigh deserted. Afterwards old inhabitants were slowly induced to return, and surviving chiefs were permitted to re-instate themselves in their former positions. In 1612, the productive capacity of the land under cultivation was estimated as about 1200 *koku*. The chiefs, at that time

less than twenty, were granted hereditary rights as village-heads, as well as whatever land they might open beyond the cultivated area then registered.

Throughout the Tokugawa period, these privileges of the chiefs remained undisturbed. They owed a nominal military service in case of an emergency, which seldom occurred. The population gradually increased, as also the area tilled after 1612, which all belonged to the hereditary chiefs. At the fall of the feudal government in 1868. *Iya-yama* was found to contain nearly ten thousand souls, living in 36 villages styled as *myō*, (the reader will remember the word *myō-den* mentioned in Note 11, above), under the control of 21 chiefs (*myō-shu*, 名主, heads of the *myō*) belonging to seven old warrior-families. Peasants who cultivated the land that was examined and registered in 1612 were free, but those who lived on other land, which was in the chiefs' possession, were the latter's tenants, and stood in a servile tenure. *DSR*, XII, v. 321; x, 494—496; *Mkr*, 198, 216—217; *Dch*, 1230—1231.

These facts about *Iya-yama* are extraordinary and instructive, at least in the following respects: 1. they retained the old name *myō* for the village,—a point of interest at this stage of our discussion,—and *myō-shu* for the village-head; 2. the chiefs were warriors, and owed a knight's service; 3. they held their post by heredity; and 4. they held their tenants as serfs. For these reasons, we shall often recur to these isolated villages in the course of this essay.

It would be interesting to visit this region to-day and study its present conditions. A citizen of *Iyo* who has recently traveled across *Iya-yama* observes that it was still largely inaccessible, that the families of the chiefs were still greatly respected by the peasants, and that many of the latter were still notably intractable and defiant.

(15) *Classes of peasants.* The ordinary peasants, technically called *hyaku-shō* (百姓), constituted the bulk of the peasant population. Their status may be explained in connection with their landed holdings. The latter had each an officially fixed and registered productive value, and by this value the importance of the holding peasant was measured. (E. g., *YZS*, 506.) From the fiscal point of view, the holding was as important as the holder. A piece of land might be divided or transferred within certain limits, but its name (*aza*, 字) would probably remain the same (cf. *Mkr*, 332), and the new holder or holders would be responsible for the same amount of dues as had always been levied on the piece. Individual holdings were thus regarded as a sort of permanent entities, and in fact often proved more enduring than the peasant families who held them, for the latter might and did change.

Where these families remained unchanged, their heirs frequently transmitted through generations the same personal names, the peasant being forbidden to bear a family name; if the same families held the same pieces of land during successive generations, the names of the families and of the holdings became intimately associated with one another. Thus, a piece of land called *Mikubo* might for a century be held by *Zenichi* succeeding from father to son. The latter would very reluctantly part with the former.

Such conditions were, however, far from being universal. Division

and transfer of land frequently took place, as we shall see later, both in accordance with and in violation of law. Peasant families came and went, and rose and fell, and the dull land also changed names or even aspects through natural calamities or human fortune. (cf. *GGI*, III, 1, 15, 16.) Often families altered more rapidly than land.

In a village where there were families much older than others, the former, especially if they were proportionately rich, were often called *sen byaku-shō* (先百姓, advance peasants), and enjoyed a degree of prestige. If they were original settlers of the village, they would be distinguished as *kusa-wake* (草分, grass-dividers). In some places, older families were *hon byaku-shō* (本百姓, main peasants), and later ones *waki byaku-shō* (脇百姓, side peasants). *DSR*, XII, v, 535—536; *GGI*, II, 17; III, 20. Often the land-holding peasants in a village were collectively called *sō hyak-ushō* (惣百姓, all peasants).

Few villages were regularly laid off like the townships in the newer American States. Japanese peasants were by nature gregarious and mutually dependent. Groups of houses would first spring up freely over widely separated spots, and as each spot became filled, virgin soil between the first spots would be settled upon and tilled, until an increased population should have turned with plough and spade all the available surface of the village. Peasants holding many pieces of land would find them scattered over too wide an extent for him alone to manage them. Also, as the village was well filled with small peasants, probably some of them would, impoverished by their mismanagement and by excessive taxes, mortgage and lose their patches of land, or perhaps abscond. Thereby the greater peasants would have their holdings added to, sometimes to their delight, but oftener against their will, when the taxes were heavy and the margin of profit small. From these and many other circumstances, all large peasants employed hired men as farm hands. This practice was common from the beginning of the Tokugawa period (cf., e. g., *DSR*, XII, iv, 196). About 1720, a well-informed writer affirmed that few landholders of 20 to 100 *koku* of recorded productivity could cultivate with their own hands more than a tenth of their holdings. (*Mi*, II, No. 15.)

The hired men were not all of a uniform status. Some were younger sons of other peasants, but these became fewer, for economic reasons that we shall examine later. Some others were hereditary servants (*fudai*, 譜第); these also decreased in number toward the end of the period, though they increased temporarily in hard years (*To*, XII, 621) and never disappeared throughout this period. There were many men all over Japan who had few or no holdings of their own, and would be willing to be hired for short periods as farm hands. These usually had no voice in the councils of the villages where they had their temporary domicile. If they became settled, or, perhaps, if they continued to live in their own villages, and worked as tenants, they were called *na-ko* (名子, sons of the *myō-den*; cf. Notes 11 and 14, above), *midzu-nomi* (水呑, water-drinkers), *mae-chi* (前地, front-land), and the like. In the Kanazawa fief, a *kashira-buri* (頭振?) owned his own dwelling-house; he had greater freedom of movement than the ordinary peasants. In Buzen,

some tenants lived rent-free in houses built by the landlord. In most places, the tenants were incorporated into five-man groups, which will be described below, but seldom had any voice in village administration. (*GGI*, II, 17; *Ggs*, 136; *Jh*, VII, 67—68; *Tk*, VII, 17—20; *Mkr*, 232, 235, 251, 305, 532; *YZS*, XI, 628; *Sme*, 82—84.) See Note 37, below.

It would be difficult to determine the average proportion of the various classes of peasants. In a village in Murayama Gōri, Dewa, there were, in 1772, out of the total number of 96 houses, 41 *hyaku-shō*, 23 *na-go*, 28 *midzu-nomi*, and 1 Buddhist priest. *Tk*, VII, 16. It was one of the most important characteristics of the Japanese peasants of this period that a large majority of them were small landholders. This paper aims to show some of the reasons for this remarkable condition. Cf. Notes 36, 37, 45, 64, 126, 141—143, below.

None of these peasant classes were serfs. The nearest to the latter were the hereditary servants of large peasants, but these were a decreasing minority of servants, and their relation to the masters was more personal than real, for they were attached to the latter's families rather than to the soil. The others were either temporarily employed laborers or tenant-farmers. The former married, and frequently established themselves as petty peasants, with the assistance of their benevolent masters, with whom they thus "divided kitchen", as the act was locally called (*Mkr*, 372—373). In fact, no law impeded the servants or tenants from acquiring land holdings and setting themselves up as full *hyaku-shō*. The *kashira-buri* had, as has been seen, even a larger freedom of movement than proprietors. This important point will be more fully discussed later.

A singular exception is seen in the case of the *ge-nin* of Iya-yama, (see Note 14, above), who were peasants living on lands belonging to the hereditary chiefs, or *myō-shu*. Peasants cultivating land registered in 1612 were, on the other hand, called *na-go*, and were ordinary *hyaku-shō*, owing thirty men's annual *convée* per family. The *ge-nin*'s corresponding *convée* was five men. It is briefly stated that the latter were much like serfs, held down to the soil of the *myō*. *Mkr*, 216—217. If so, it must have been owing to the fact that the hereditary chiefs were warriors personally overseeing the tilling of their landed estates. The *ge-nin*, therefore, must have stood in a much different position in relation to their lords from that of the tenants or servants in peasant families in other villages.

(16) *Village-officials*. Village-officials in the Suzerain's Domain-lands, and also in most of the Baron's Fiefs, consisted of three classes of personages of divers titles, whom we may call, respectively, Village-heads, Chiefs, and Elders. *Tk*, II, 33—34; etc.

The Village-head was variously designated as *na-nushi*, *shō-ya*, *kimo-iri*, and *ken-dan*, the first two titles being most common throughout Japan, while the last two were practically limited to the northern provinces of Mutsu and Dewa. The various titles were used with little system, the same village, or even the same document, sometimes using two or three titles to denote the village-head. (*Tnk*; *GGI*, I, 15, 16, III, 20; *DSR*, XII, v, 536—537; *Mkr*.) It is only in a general way that it

can be said that villages east of the Hakone Pass used the title *na-nushi*, and those west, the title *shō-ya*.

Kimo-iri (肝煎, roasting the liver, or 肝入, putting in the liver), is a title appearing from the end of the sixteenth century, and merely meaning utmost diligence [in the care of village affairs], as witness the familiar Chinese expression 'to break one's liver and bile' (摧肝膽), and such English phrases as 'putting one's heart into his work' and 'racking one's brains'. (Cf. *Nz*, I. 15; *DSR*, XII, v, 316. *Smc*, 101 note, is improbable). The term was not limited to the village-headship, but was applied to many other kinds of chiefs. As for *ken-dan* (檢斷, examining and deciding), its use seems to have dated earlier than *kimo-iri*. During the later years of the Tokugawa period, it was usually confined to town officials in the north, especially in the Sendai and Yonezawa fiefs. (*Nz*, I. 15—16; *Mkr*; *YZS*; *SDS*.)

The title *Na-nushi* (名主) was derived from *myō-shu*, written in the same characters, and meaning: head of the *myō* (名, name),—*myō* being an abbreviation of *myō-den* (名田, name-land), land bearing the name of the owner or original cultivator. The *myō-shu* of the Kamakura and Muromachi periods (from the late twelfth to the late sixteenth century) was, however, radically different from the *na-nushi* of the Tokugawa epoch, for the former was a little seigneur or at least a man of the warrior class, while the latter was essentially non-feudal, though sometimes vested with the right to wear swords and bear family-names. (*Dch*, *Introd.*, 74, 84; *Nz*, I. 14; *DSH*, VII, 23; *Ksd*, 2243.) The transition of the title from the one to the other is not yet clearly traced, and falls beyond the scope of this paper.

Shō-ya (庄屋) was originally cognate with *na-nushi*. Literally, it meant a house (house-master) in the *shō-en*, large private estate which paved the way toward feudalism in Japan, and which in many instances remained for a long time as a territorial unit. (Cf. *Smc*, 100—101, note.) The owner of a distant *shō* would leave its management in the hands of his agents, who, being private men, were called by different ill-defined titles. Of these, *shō-ya* was one. In its exact form, it is not found in documents as early as is *myō-shu*, and it is difficult to say whether all the *shō-ya* were also originally warriors, as they generally were not under the Tokugawa. (*Nz*, I. 15; *DSR*, XII, i, 793 ff.)

It is interesting to note that, in the early years of the Tokugawa régime, there lingered exceptional cases of warrior village-heads at places where warriors did not live in castle-towns, but were settled in villages as petty seigneurs. These being influential among peasants, some of them became village-heads. There occurred, in 1603, a serious insurrection of one of these *shō-ya* in Tosa, where, at the coming of the baron Yamano-uchi, some two thousand vassals of the old lord Chōsokabe had settled as farmer-warriors in different parts of the province. (*DSR*, XII, i, 734—749.) Many of their descendants retained their rôle of *gō-shi* (郷士, country warriors) throughout the Tokugawa period. There were *gō-shi* in a few other fiefs, and many of them must have served as village-heads. A conspicuous example is that of Iya-yama, where, as will be remembered, several old seigneurs remained as hereditary village-

heads for more than two hundred and fifty years. They even reverted to the old title *myō-shu* in 1616, after having for a brief period been called *na-moto* (名本). See Note 14. above.

As for the appointment of the village-head, it has been said that generally in western Japan, the headship was handed down from father to son in old, but not always the wealthiest, families; that in eastern provinces either a general election or an informal selection for life or rotation for an annual term prevailed, and that, as a consequence, the office possessed more dignity and worked with greater ease in the west than in the east. (*Jh*, VII, 28—31.) If this was true in a very general way, there were numerous exceptions to this contrast. Even in Fiefs and Domain-lands near Edo, an official appointment of the head without popular election or choice was not infrequent. (E. g. *Nz*, I, 15; *Mi*, I, iv, 32.) Even in cases of election, the authorities sometimes exercised a veto power or ordered reconsideration. (*Jh*, VII, 31.) It would seem, on the whole, that election or rotation was much less common than appointment, and tended to lapse into the latter. (*Smr*, 103—107.)

The duties of the village-head were, like those of the Intendant or Bailiff, varied and extensive. He acted as the medium between higher authorities and the village, both the former's orders and the latter's reports always passing through his hands. Deeds of sale and mortgage, as well as petitions and appeals from villagers, required his seal affixed to the documents. He assisted in the examination of the productive power of cultivated land. He divided among the people taxes due from the village, and collected and delivered them. He was responsible for the accuracy of the accounts of the village finances, and also for the correctness of all the regular records and reports. Public works and repairs, distribution of official loans and alms, examination of the census and the religion of the village, and the like, also devolved on him. Not the least important and delicate point of his duties was to guide the morals of the peasants, and prevent their extravagance and misconduct, by persuasion and personal example. Everywhere the importance of his moral qualities was strongly emphasized. (*GGI*; *YZS*, 506; *Smr*, 102—103.)

The village-head had, of course, no military or judicial power. He exercised police functions with the aid of villagers, and, in disputes among people, he offered his good offices to advise private reconciliation of the parties, in accordance with the policy of the feudal authorities to discourage judicial contest as far as was compatible with justice. (*GGI*, II, 7, 12, 36—37; III, 1.)

In return for these varied services, the village-head received a remuneration, which, in Domain-lands, seldom exceeded a half of one per cent. of the recorded annual productivity of the village. He was, also, remitted a part or the whole of the village dues, and in some instances given free labor on his farm of two or three days of all the peasants. He also received presents from villagers, and those must have been considerable when the head was virtuous and beloved by the people. (*Jk*, II, 46; *Jh*, VII, 32—33; *Tk*, VII, 15; *Hrs*, 1296; *Smr*, 107.) Between his heavy duties and small emolument, many village-heads in Domain-

lands became impoverished (*Mi*, I. iv. 32). In the Barons' Fiefs, great diversity of practice seems to have prevailed respecting the question of remuneration. In some places, the reward was much more liberal than in the Domain-lands, (e. g., *SDS*, II. 43. 46; *DSR*, XII. vii, 1158). The degree of the heads' usefulness and moral influence widely differed in different Fiefs, according to the general condition prevailing in their rural administration.

One head for each village was a rule usually followed, but sometimes two small villages were under one head, and one large village had two heads. In every village, the head was assisted by some half a dozen Chiefs ordinarily called *Kumi-gashira* (組頭, group-heads), but also known as *toshi-yori* (年寄, elders), *osa byaku-shō* (長百姓, leading peasants), *otona byaku-shō* (老百姓, older peasants; in a document of Ugo dated 1607 occurs the title *otonashiki mono-domo*, 'obedient fellows'), *osa-bito* (長人, leading men), and the like. In Yonezawa, the title *Kan-dai* (欠代) was used after 1801. Suwō had *kuro-gashira* (辟頭). The first name, *kumi-gashira*, suggests that, in some cases, the office originated with the heads of five-man groups, which are considered in Note 53, below. (*Tk*, II. 33—34; *Jh*, VII, 33; *DSR*, XII. v, 530—537; *Mkr*; *Hrs*, 1296; *Wig*, i, 47.) This title was, however, evidently not universal. The other titles would seem to indicate that the Chiefs had merely been leading peasants of the village. *Osa byaku-shō*, for example, was the title applied in some parts till a late period to peasants who held no official position, but whose forefathers were large landholders, (Cf., e. g., *DSR*, XII. v. 316, 530; with *Nz*, I. 16; *Jh*, VII. 34.)

The Chiefs were usually chosen by the village from among the chief families, for a term of one or more years, and the choice was reported to the authorities. (*Tk*, II. 33—34.) This, however, did not prevent the office from becoming confined to a limited number of persons in a given village. (*YZS*, 553; *NTK*, IV, 419—420.) The duties of the Chiefs were much the same as those of the head, whom they assisted. They sometimes received a slight remuneration, and, in addition to it, or instead of it, a remittance of village dues. (*Jh*, VII, 32; *Tk*, VII, 15.)

Besides the Head and the Chiefs, the average village had one or more Elders, whose function was to keep an eye on the conduct of the village-officials, to give counsel and admonition, and generally guard and promote the best interest of the village. They were chosen from among the most highly respected of the peasants, and usually served with little or no remuneration. They often enjoyed greater moral influence than the Head, but in public documents his signature and seal followed those of the Head and the Chiefs. (*Jh*, VII, 33; *NTK*, IV, 419; etc.) Their title was *hyaku-shō dai* (百姓代, representatives of peasants), *sō-dai* (惣代, representatives), *sō byaku-shō* (惣百姓, representative peasants), or *mura-bito gashira* (村人頭, heads of villagers). Where the Chiefs were called *kumi-gashira*, the Elders might be known as *osa byaku-shō*, a title which was applied to the Chiefs in other places. (*Tnk*; *SDS*; *Mi*.) This confusing identity of titles for the two different posts would seem to point to their common origin and later differentiation.

(17) *District-heads and groups of villages.* In larger Fiefs and Domain-

lands, as, for example, Yonezawa, Sendai, Kanazawa, Okayama, Hiroshima, Yamaguchi, Kurume, Kumamoto, and others, neighboring villages were grouped together for administrative purposes. The commonest name for the groups was the plain *Kumi-ai mura* (組合村, associated villages), but the old names *gō* (郷), *ho* (保), *ryō* (領), and others persisted in some places, as also the peculiar *tōri* (通), *suji* (筋), *te-naga* (手永), and the like. (*Dch*, Introd., 93; *YZS*; *Mkr*.)

The *to-mura* (十村, ten villages) groups were probably found only in the Kanazawa fief comprising for the most part the provinces of Kaga, Noto, and Etchū. These groups are said to have dated as early as 1604, and were originally composed of ten or twelve villages situated near together, but they grew larger and fewer, as time went on. At the end of the feudal régime, many a *to-mura* was found to comprise 30 or 40 *mura*. (*Mkr*, 475.) According to the normal scheme, however, which probably continued to be in practice in several districts of this fief, villages were to be organized as follows: five neighboring villages were under the supervision of an *ō kimo-iri* (great village-head), who was one of the *kimo-iri*, or heads, of the villages, and took the post of the general head annually by rotation; two such groups of villages, that is, ten villages, formed a larger division, and its head, called *to-mura kimo-iri* (ten-village head), was one of the two *ō kimo-iri* of the five-village groups, and served for life, but not by heredity; and five of the five-village divisions were likewise banded together under the control of an *ō to-mura* (great ten-village [head]) selected from among the five *ō kimo-iri*. (*Sho*, 142.) "To-mura" seemed later to have become the popular general name for this elaborate organization.

The heads of the *to-mura* were called *to-mura kimo-iri*, or simply, *to-mura*; sometimes, *osa byaku-shō*. The great majority of them were of the peasant class, though, like some village-heads, many of them were favored with the privilege of wearing swords and bearing family-names. A few were real warriors. None of them, however, seem to have held their districts in fief. They were directly responsible to the Baron's government, and not to his Bailiffs and land-holding vassals. (*DSR*, XII, ii, 854—859; *Mkr*.) The importance of such an institution in extending the Baron's authority throughout the Fief and in securing uniformity of rural government may well be inferred. The *to-mura* arrangement is said to have excited the Suzerain Yoshimune's admiration for its efficiency. (*To*, XIV, 300—301.)

More common for district-heads than *to-mura* were the titles *ō shō-ya* (大庄屋, great *shō-ya*), *ō kimo-iri* (大肝入), *sō shō-ya* (惣庄屋, *shō-ya*—general), *wari-moto* (割元, 割本, dispenser), *ō yoko-me* (大横目, great supervisor), *ō sō-dai* (大惣代, great representative), *ken-dan* (検断, examiner and judge), *ō doshi-yori* and *chū doshi-yori* (大 and 中年寄, great and middle elders), and the like. (See *Mkr*; *YZS*; *Gsr*.)

They were generally great peasants, and, as heads of extensive regions, some of them wielded as large an influence as petty barons and bailiffs. Their service, which was similar to that of the village-head but magnified, was remunerated with a special slight levy imposed upon the districts. For the maintenance of the *to-mura*, for example, all the male

peasants between 15 and 60 years of age gave about $\frac{2}{5}$ peck of rice (*Mkr*, 259). This circumstance and the great power of the district-head had led to so many corrupt practices. that, in 1713, the Suzerain's government decreed that this office should henceforth be discontinued but in exceptional regions throughout the Domain-lands. (*To*. XIII. 318, 320; Note 59, [XXVII, 6]. beldw.) This law did not affect the Fiefs.

(18) *Delegation and responsibility in China*. See the author's *Early institutional life of Japan*, chap. 3.

(19) *Invulnerability of the official*. Each official represented in his proper sphere the power delegated to him in successive steps from the very highest authorities. He was a dignitary of the Suzerain or the Baron (公儀 or 君公の御役人), the honoric *go* (御) commanding respect from all persons below him (者共, 輩, 下下). He, on his part, for the same reason, showed extreme deference in addressing himself to his superiors. The latter were approached with reverence (乍恐), and were listened to with abject fear (奉畏候). It was a capital offence to use privately the Suzerain's family emblem or to pretend that a private undertaking was official (御用). (*KR*, I, No. 33; *GGI*, II. 19, 20.)

(20) *Sacredness of the laws*. We cannot tarry to go into the fruitful discussion as to the source and meaning of 'law' during the Tokugawa period. It may be stated, in short, that, whatever the origin of the ideas contained in the law, the latter became such only as it emanated from the higher authorities. Each law took the form of an official command, and was regarded as embodying the will of the ruler. It might gradually and naturally fall into disuse or be modified by custom, or even might at once be found to be unworkable, but it should not be wilfully altered or abrogated by the people without official sanction. The law was sacred, for it was the voice of the powers that ruled. Even a sign-board bearing an official proclamation was treated with reverence: it was surrounded with a fence, was guarded from fire, and was re-made when it wore out by exposure. (*GGI*, I, 12; II. 25.)

It is interesting to note that frequently the authorities sought to add to the majesty of a law by stating that its infraction would incur punishment from heaven (天道).

(21) *Punishment of feudal nobles*. This subject should be discussed in a separate paper on the feudal classes of this period.

(22) *Joint responsibility of corporate bodies*. Of the various kinds of corporate bodies mentioned, the cities and guilds form the subject for an independant discussion. As for the village communities, their joint responsibility will be more fully treated when we discuss the five-man group. In short, the whole or a part of the village, or its officials, were held responsible for the receipt and transfer of the official circulars, for the payment and delivery of the taxes, for the good behavior of all the members, for the arrest and surrender of robbers and incendiaries, for the maintenance of taxable estates, despite the running away of their present holders, and for a hundred other affairs. (E. g., see *GGI*, I, 6, 7, 14, 34; IV, 3, 8, 11, 12, 13, 15; *Ggs*, 5, 7—8, 134—135; *KR*, II. No. 44.) Cf. also, Note 144 b. below.

(23) *Framing laws with discretion*. An examination of a large body

of Tokugawa laws will strike one by the persistent recurrence, after important provisions, of the clause that cases requiring arrangements contrary thereto should be reported to the central government.

What might be termed discretionary laws, also, were abundant. Sometimes special laws supplied or modified general orders previously issued in the form of public moral exhortations or as informal measures, or *vice versa*; for example: an increase of population was generally encouraged, but an excessive increase in an old village was checked by prohibiting indefinite divisions of land-holdings; the peasants were continually taught to settle disputes by private adjustment, and yet the evil of suppressing litigation was provided against by law. (*To*, XIII. 315—316.) Cf. Notes 36, 45, 49, below.

(24) *Operating laws with discretion.* Judgments passed by the courts afforded numerous examples of the use of equity. This and the speed of rendering justice struck Kaempfer, who thought them exceptional (Engelbert Kaempfer, *History of Japan*, Engl. transl., new edition, Glasgow, 1906, III. 319—320), but who, it is to be feared, was acquainted only with favourable instances. (Kaempfer was in Japan in 1690—1692.) Good rulers emphasized the importance of equity and discretion. Ieyasu remarked: "Rules of conduct are generally fixed according to men's rank, but beware that time and place alter the *modes* (様子, *yō-su*). (*Iwabuchi ya-wa*, in *DSR*, XII. v. 115—116.) Iemitsu criticized his chief justices, as they, prompted by a desire for an exhaustive inquiry, put to the witnesses questions beyond their intelligence, which bewildered them without enlightening the issues. He also taught the distinction between what he termed the commissioner's decision (奉行の裁判) and the suzerain's decision (天下の裁判). In a dispute over a boundary, for example, the former would determine the truth, but the latter would add that a part of the land of the winning side be ceded to the other, if the correct division was certain to deprive many men of the losing party of their very means of sustenance. He did not praise a man who made a useful compilation of court decisions, for, thought he, no two cases would be exactly alike, and precedents were not always safe guides. (*To*, X. 1090—1092.) Tsunayoshi ordered that decisions should not be based on the consideration of immediate justice alone, but also on their probable effects on popular morals and customs. (*Ibid.*, XII. 107.) Uesugi Harumori was a living example of discretionary justice, and so were Hosokawa Shigekata and other barons noted for political wisdom. (E. g., *YZS*, 81—88, 262, 807; *Gi*, I. 2. etc.) Equity and judicial acumen combined in the highest state of efficiency in the person of O-oka Tadasuke (1676—1752). (*To*, XIV. 263—264.) Cf. *Wig*, i. 71—73; Prof. Mikami Sanzhi's articles in *Hrs*, 1088—1115.

(25) *Bending laws for equity.* Kuroda Yoshitaka (黒田孝高, 1546—1604), like many other Barons, had made gambling in his field a capital offence. His vassal Katsura won a large stake one evening, and on his way home, with all the booty on his shoulders, unexpectedly met his lord, and, in bewilderment, improvidently exclaimed: "I have not been out gambling." His comrades gave him up as lost. The next morning he was summoned to Yoshitaka's presence. The latter asked

him how much he won the preceding evening, to which Katsura replied in exaggerated terms. "Bravo!" said the lord, "but it was a risky business to evade my law. Your foolish exclamation shows your fear of the law. If you fear it to that extent, rather observe all laws. Beware, too, that after too good a fortune usually comes ill luck. If I hear you have squandered your money, I shall punish you. Do not gamble. Do not buy luxuries, and be careful not to become bankrupt." During his rule, few of his vassals were punished capitally or banished. *Kuroda ko-kyō mono-gatari* in *DSR*, XII. ii, 72ff.

The evading of a barrier was punishable with death, but a peasant committing this offence on his way to Edo to lay before the central authorities an appeal over the head of an unjust local official, from whom he could of course secure no passport, was not punished therefor. He was allowed to testify that, as he came to a town just this side of the barrier, he lost his way and strayed into a forest, where he met a man who gave him a wrong direction; this brought him to a town just beyond the barrier. Slight falsehoods regarding the ages of the culprits who have just outgrown their minority, or time, distance, the length of weapons, and other circumstances, were frequently imposed upon the offenders by the magistrate himself, in order to extenuate their penalties when their cases called for equity. (The popular story of Yao-ya O-shichi, a maiden who set a building on fire with a hope to see her lover, and who honestly and innocently refused to testify that she was still in her minority, as the magistrate would have her do, is a pathetic illustration. She was a year too old to be a minor, and was, much against the wishes of the authorities and the people, punished capitally for incendiarism.) Perhaps for this need of considerate justice, it was customary not to allow the affidavit of the defendant to be shown him in writing, though he might listen to its reading. *Tk*, IX, 5-6, 15.

(26) *The peasant as the foundation of the State.* The constantly quoted maxim (derived from the *Shu-king*, *hia-shu*, iii. 2) is, 民乃國之本なり, meaning precisely the caption of this Note. According to the economic conception of most rulers of this period, the peasantry was the only productive class of people, and furnished the wherewithal of maintaining government and all phases of national life. "Agriculture is the basis of all things and the treasure of the world. It is the peasants' honor to be engaged in it." Even if a peasant should be enabled to pay more taxes by becoming a merchant, "nothing was precious that had not been yielded by the soil." *YZS*, 99, 105. "Of the four classes of people, [i. e., gentlemen, peasants, artisans, and merchants], the peasants are the foundation of the State. . . . From the Emperor down to the common people, men's lives depend upon food and clothing. That food and clothes are fruits of the peasant's labor is self-evident." *Om*, ii, 44.

It will be remembered that the peasants formed nearly ninety per cent. of the entire population of Japan under the Tokugawa. See Note 7, above.

(27) *Peasants and warriors as against burghers.* The warriors and peasants, to a large extent, prospered and suffered together under varying conditions of the rice crop and its market value, whereas merchants

often profited when the others lost. The warrior's income was fixed, and the toiling peasant's was little more elastic, but the burgher seemed frequently to make fabulous fortunes with little labour. It will be well understood that, according to the current economic theories of the period, the merchant did not produce or increase the wealth of the nation, and gained where others lost. His apparently easy profits, therefore, made him an object of suspicion and hatred. Moreover, under the prevailing arrangement of the period, the warrior's income in rice was converted into money through the medium of merchants, who not seldom speculated on the rice at the warrior's expense. If the latter was improvident enough to spend more than his income, the merchants would willingly finance him with his future years' incomes as security, and thereby hold him in perpetual obligation. (*Bms*, 39—41.) Spiritually, too, there was much in common between the peasant and the warrior, beside much in antagonism between them both and the burgher. The former too prized physical vigor, simplicity and loyalty; the latter's venturesome and ostentatious habits, accompanied by a utilitarian and impersonal point of view, were disliked and feared as tending to debase and undermine the moral life of the feudal society. (*Ngh*, 228.)

The feudal legislation was largely influenced by these ideas and sentiments. To take a few illustrations, the suzerain's government once forbade merchants to undertake the opening of new land. (*To*, XII. 269), and always looked askance at, and often interdicted, their acquiring titles over cultivated land. (*Mkr*, 334, 335; *Mi*, II, vii. No. 27). Peasants noted for filial and other great virtues were rewarded with the privileges of bearing family-names and of wearing swords, but the latter privilege was sometimes denied to merchants equally virtuous (*To*, XIII. 661). On the face of law, at least, farmers and merchants might not adopt each other's occupation (*GGI*, III. 12; *KKK*, 545—546; *YZS*, 103—106; *TMK*, f. I, 33; *Mkr*, 246, 252—254) or enter into marriage relation, and the younger sons of the peasants might not serve in merchants' families (*Mkr*, 51—52; *YZS*, 527, 631). "As the minor occupation [末業, i. e., commerce, as distinguished from the major or chief occupation, 本業, namely, agriculture] seems to return much profit for little labor and therefore excites the peasant's envy and interferes with agriculture, it has been a custom in all ages both in Japan and in China to forbid him to marry a merchant's daughter." (*Ibid.*, 747.)

The rising influence of the burgher class was, however, so irresistible, and had so insidiously stolen over a large section of the warrior class, that, especially at Edo after the end of the seventeenth century, the mercantile mode of life and thought began deeply to affect the warriors (*Sb*, I. 59—66; V. 27—31; *Bms*, 25—26, 50—51). The same mode in its worse aspects, it was continually deplored, was corrupting the innocent peasants also (*Mi*, I. iv. No. 29). This important tendency falls beyond the limits of our essay.

(28) *Separation of arms from land.* Further, see this *Journal*, vol. XXX, pt. III, pp. 270—271, (the 12th to 13th page of the Introduction to these Notes), and Note 60, below.

(29) *Tenants and farm laborers.* See Notes 15, above, and 37, below.

(30) *Ownership virtual and theoretical.* It is hazardous to make a general statement on the question of ownership of land. Law and customs varied in different places and at different times.

Just prior to 1600, when a general cadastral survey of Japan was made under Hideyoshi's command, each piece of land whose name and average productive capacity were registered was entered under the name of the actual possessor, regardless of the history of his possession. He was allowed to hold the piece even against the lord of the fief in which he lived. "It is strictly forbidden," says an order of a chief commissioner, "to give to the lord any of the cultivated lands recorded in the register." Was it ownership that was here recognized? It was, as is evident from an order of another commissioner, the right of cultivation (作職, *saku-shiki*), rather than ownership. "The right of cultivation over a wet or upland piece," says the order, "belongs to him under whose name it was registered during the recent survey. It is forbidden to allow the land to be taken by another person, or to take another person's land under the pretext that one has once had the right of its cultivation." (*Dch*, introd., 94—95.) These are illuminating orders, as coming from the commissioners of Hideyoshi, the autocratic suzerain bent upon enforcing a uniform land law throughout Japan. They may perhaps be said to reflect his policy of curbing the powers of the barons by directly protecting the rights of the peasants under them. Nevertheless, it is probable, too, that the right of prescription and the right of cultivation which he recognized in the actual holder were based upon a prevalent practice of the period.

Whatever the effects of these orders before 1600, it is hard to assume that the same principles ruled under the Tokugawa. During the early years of their suzerainty, one occasionally meets with deeds of sale in which it is apparent that what was transferred thereby was the right of cultivation rather than ownership. (Cf., e. g., *DSR*, XII, iv, 575—577.) It makes little difference if the right had been enjoyed through generations and was now transferred permanently. (Cf., e. g., *ibid.*, XII, x, 504ff.) The same idea lingered in some Fiefs till long afterward. In Akita, for example, the peasants tilled the land which the Baron owned, the former owning not even sites for their houses, which were erected on cultivated land. (*Ibid.*, XII, xi, 169—170, from 秋田沿革史大成). In Kanazawa, the same theory was held: land was the Baron's (*on haka*, 御高), and if a peasant was too poor to meet his obligations, he was allowed only to sell the use, not the ownership, of his land. The process was called *kiri taka* (切高, dividing the assessed productivity, that is, not the acreage), and the price was euphemized as return-favor (*rei*, 禮). (*Mkr*, 335, 473—475.)

In several other places where, as in the greater part of Japan, people no longer remembered the distinction between the right of ownership and of cultivation, or, perhaps, the latter had long been assimilated with the former, the idea of transferring the mere use of land still adhered to tenant-farming. Tenant-farmers sold their right of tenancy to others, and pieces of land under long terms of lease changed hands with more or less freedom. The practice was especially prevalent in parts of Echigo,

Bitchū, and Tosa. (*Ibid.*, 476, 527, 530—531, 539—544.) This last usage seems highly significant.

Even where the holding peasant was to all intents and purposes regarded the owner of his land, the persistent fiction that he merely had the right of use lingered almost universally, and, in many places, unconsciously. This will be clearly seen in the following Notes 31—40.

The legal proof of a holding consisted of either an entry in the official register, a title deed, a deed of sale, or a receipt of the land dues. (*Mkr.*, 331—332, 336—340; *Wig.*, v. 1—20.)

(31) *Cultivated and uncultivated land.* As might be expected, the peasant's virtual ownership extended over cultivated land, but seldom over uncultivated or non-arable land adjacent thereto. The tenure of the latter was neither uniform nor always definite within the same Fief or Domain-land. Fiefs often presenting a great variety of tenures in juxtaposition. In Sendai, Tosa, and Higo, for instance, different kinds of fief land, village land, religious land, and private land, existed side by side, many of them in ill-defined tenures (*Mkr.*, 441—443, 445, 451).

Generally speaking, some of the following belonged to the Domain or the Fief, (it would be truer to the popular conception of the question to say 'the Domain or the Fief' than to say 'the Suzerain or the Baron,' for, thanks to the presence of intendants and bailiffs, the peasant's point of view in regard to lauded property was rather impersonal): 1. grass-land next to rivers, lakes, and the larger ponds; 2. grass-land and wood-land on the borders of villages and districts; and 3. forests specially reserved for public purposes. The privilege of cutting grass and smaller trees on these lands for fodder and fuel was often granted to villages or individual peasants, on payment of small dues or under other conditions, and the felling of larger trees for more permanent ends was allowed under varying terms. The border-land often played an important part in the economy of villages which had insufficient areas of cultivated land, and gave rise to many a serious dispute between them. (*TMK*, f. II. 1—106. pts. 人會山 and 秣場; III, 149—181, 204—308. pts. 村境 and 山林境; *Mkr.*, 346, 431—434, 440, 442, 445—446.)

Some other land along rivers and ponds, and grass and wood land, were considered as common property of a village in which or the villages between which they were situated. In these cases, dues, if any, in return for the use of grass and trees were paid to the village, which made the necessary regulations. Larger lots were guarded by wardens. These men originally were, in many places, said to have been owners of these tracts, which they, under the pressure of the taxes levied on them, voluntarily turned them over to the village, and became their keepers. (*Mkr.*, 381, 420—424, 430—432, 435—440, 449.)

Some uncultivated and non-arable land was already in private ownership. Customs, of course, varied greatly in this matter. The narrow marginal patches about rice-fields, for example, were considered in some places as belonging to the owner of the fields, but, in some others, he owned the soil of these margins, but not the grass growing thereon, which was common property of the village. In Yonezawa, the holder of a piece of tilled land had a free title over the uncultivated land

bordering upon it. Most of the wood-land originally granted by the Fief to the village gradually passed, in Sendai, into the hands of large land-holders. The owner of uncultivated and waste land either did or did not pay taxes for its free use, according to the localities and to the origin of the lots. In most places, land of this description could be alienated with greater freedom than cultivated land. The authorities, however, actively interfered with an indiscriminate cutting of large trees, it being a traditional policy of all Japan in this period to preserve and increase forests so far as it did not interfere with the life of the peasants. (*TMK*, f. II. 91, pt. 秣場, No. 1; *Mkr*, 333, 438, 441, 455.) See also Notes 36 and 66, below.

(32) *Right of seizure*. In Sendai, the government of the Fief might demand a piece of private land for official purposes, and recompense the holder with another piece of equal value. If such a piece could not conveniently be found, he might claim no pecuniary consideration for the land he surrendered. This latter outcome was called *tō-moku* (倒目, overthrowing the title). *Mkr*, 334. This is a solitary instance of the lord's lingering right of seizure. Even in Sendai, this practice was evidently rare, and it is difficult to find similar rights exercised elsewhere. Cf. Note 144b, below.

In some parts of Tosa, the system of making allotment and periodical redistribution of land, which was copied in Japan from China in the seventh century, (cf. the author's *Early inst. life of Japan*), had been resuscitated and in force for a considerable period, when the feudal administration was abolished. This subject is still obscure, but it seems unlikely that the system was extensively applied to peasants' holdings even in Tosa. Nor does it seem to have been in practice in any other part of Japan, save portions of the distant Ryū-kyū (Loochoo) islands.

(33) *Right of escheat or mortmain*. In the Suzerain's Domain-lands, landed property was confiscated (1) for grave offences, (2) for illegal mortgages and other fraudulent or unlawful transactions in land, (3) for an intestate succession in which the deceased's relatives were engaged in hopeless disputes. Technically, the first class of forfeiture seems to have been called *kessho* (闕所), and the others *tori-age* (取上). Throughout the period, a gradual trend toward leniency in all these cases is discernible, the moveable property of the culprits, the belongings of members of their families, and the claims and interests of their creditors and debtors, receiving greater and greater consideration. The most remarkable is the matter of the holdings of runaways who were only impecunious, not criminal. Once these holdings were probably confiscated, but the universal tendency was to forfeit them only when no relatives and no friends of the runaways were forthcoming to succeed to their estates. Even then, the forfeiture was reluctantly accepted by the authorities, and the estates were gladly restored to the original holders, if they returned, or to their kiu.

As will be seen in the next Note, escheat in default of heirs was as infrequent as that for desertion.

Theoretically, land was to be forfeited for a repeated failure to yield

its taxes, but in this instance, also, the authorities were far from being eager to seize the land. When friendship or neighborly spirit did not come to the rescue, a village-official would offer his good offices, and the Intendant or Bailiff was not to show his hand until all resources were exhausted to save the land from confiscation.

It is apparent that all this leniency was not entirely due to official benevolence, but was largely influenced by the consideration that, owing to peculiar economic conditions, it was growing more and more difficult to find men willing to undertake the cultivation of confiscated or deserted land. (See Note 133, below.)

Land confiscated for whatever reason was either entrusted to the charge of relatives, village officials, or the village as a whole, or let out to tenants, the actual holders being held responsible for the regular dues from the land. It is also probable that pieces of land sometimes granted permanently to persons of exemplary virtues (cf. in Okayama in 1654; *Semetewa-gusa*, 責而者草, by Shibui Noriakira, 澁井徳章. IV, xii, 24) were parcelled out of confiscated cultivated land.

If the original holders had arrears either of taxes or of debts, all or part of the land they forfeited was sold in order to satisfy the claims, or else the present holders were obliged to meet them in instalments out of the income from the land, in addition, of course, to the payment of the regular taxes.

(*DSR*, XII, ii, 857; *To*, XII, 268; *BK*, I, 8; *TMK*, z. I, 126, pt. 家督相續, No. 4; z. II, 11, pt. 失踪, No. 8; f. I, 216—240, 闕所; *Mkr*, 170—219, 337—339; *JK*, II, 37, 40, 41, 53.) Cf. Note 144 b, below.

(34) *Succession testate and intestate.* Customs concerning succession showed great diversity. In some places, primogeniture, even representative primogeniture, was the rule; in others, simply agnatic succession. In these respective districts, the principles prevailed over other considerations, and when they conflicted with testaments, a compromise was effected by dividing the property and giving its major part to the oldest male son. When the heir was still a minor,—the minority ending between 14 and 20 years of age, according to localities,—a guardian or two were chosen from among the relatives and village officials, or else the boy was adopted as heir to his uncle or aunt or the second husband of his mother. The rigor of primogeniture or agnatic succession was further softened by a free law of adoption, which prevailed in all Japan.

In other places, the will was a common requisite for succession, and was binding even when the testator ran away, provided it was drawn up in due form. It either was accompanied with the seals of village officials and relatives, or was made alone by the testator and was kept strictly secret till it was opened after his death in the presence of relatives. The testator could nominate as heir one of his nearest kin other than his eldest son, if the latter was incapable or physically invalid, or even a woman. If a man died intestate, or if the will was not in correct form, it was incumbent upon his relatives and village officials to deliberate and decide upon a proper heir from among the former.

In some districts, none of the three agents, that is, primogeniture, the testament, and the council of relatives, were alone strong enough to decide

a succession, but the first two were weighed carefully in the last. In such instances, the relatives naturally were an important factor in the problem.

In all these various cases, however, the universal and predominant principle was that the name of a family should be preserved against all obstacles that could possibly be overcome. This idea prevailed throughout Japan, and exerted a tremendous influence on social order. It is a subject worthy of a full discussion. It is enough here to allude to it and say that the feudal authorities were obliged to respect this strong popular demand. Indeed, the principle was as strong among the warrior class as among the peasants, for neither probably had any other point of view regarding matters of the family. Escheat in default of a male heir in a peasant family would be unlikely to be in practice in such a society, for the independent peasant family was usually closely identified with hereditary holdings of land which had acquired names (*aza-na* 字名), and always subsisted on some lauded estate, however small. The family should not die, and, if it would live, it needed laud. An estate left heirless, therefore, was not confiscated until it was evident that there existed no worthy relative of any degree whatever of the deceased to succeed it or no person to be adopted.

Formal official sanctions were necessary in some places for adoption, guardianship, and succession. In others, the authorities were not even notified of these events, and the census was revised only once in the year. Even in the former cases, too, there was little official interference.

(GGI, I, 8; II, 16, 18, 27—28; III, 8, 15, 16; *TMK*, z. I, 126—127, pt. 家督相續, No. 4; *Mkr*, 175—176, 267—300, 305, 347—374; *Wig*, v, 88—95; *Smc*, 90—91.)

(35) *Land, capitation, and house taxes.* The subject of taxation will receive special attention later in this essay. (See pp. 277—283 of this *Journal*, vol. XXX, pt. III, namely, the 19th—25th pages of the Introduction to these Notes, and Notes 95—113, below.) There it will be seen that the principle tax, that is, the laud-tax, was assessed according to the officially determined annual productivity of each piece of cultivated land, which was considered an entity; that several other taxes were assessed likewise; and that each household or each male peasant as basis for assessment occurred only in some instances of village dues, as distinguished from the taxation of the Fief or Domain-land. Even the village taxes were levied in few places exclusively on houses or men. (*Mkr*, 257—260, 263, 413—415, 418—419, 423, 434.)

(36) *Alienation and division of land*, also, will be discussed more fully later. At the beginning of the feudal ages, when the warrior was an actual holder of land, it was he who was forbidden to alienate his land at will. Since the separation of arms from land, the burden of the prohibition naturally shifted from the warrior to the peasant. (Prof. Miura Shūkō, *Kamakura zhi-dai-shi*, 三浦周行, 鎌倉時代史, Tokyo, 1907, pp. 530—531; *Nrs*, 95.) In the Suzerain's Domain-lands, at least, a permanent sale of land was illegal since the second quarter of the seventeenth century, and the principle soon prevailed over most Fiefs. It was, however, not only impossible, but also often injurious to peasants, to suppress transactions in land. Consequently, penalties for sales became

less severe in the Domain-lands from the eighteenth century, and everywhere sprang up interesting practices, both legal and illegal, whereby either the title or the use of land changed hands, though with varying degrees of freedom in different parts of Japan. Newly opened lands could be more freely transferred than old lands, house-land than tilled land, and uncultivated land than either, while in several Fiefs any land whatsoever could in one way or another be disposed of. The fictitious devices employed to preserve the semblance of observing the law forbidding the sale of land included practices analogous to usufruct and superficies, as well as sales for terms of years and mortgages with the original intention to foreclose. In spite of all this, however, the law against permanent sale persisted, and its principle was a legal tradition respected throughout the Tokugawa period. On the subject of alienation, see Note 127, below.

As for the division of land among children or other persons, which will again be taken up in Note 45, below, a similar tendency was marked. While the peasant might not divide his holdings indefinitely, he was at liberty to do so up to a prescribed limit. This limit, also, was in no place absolutely insurmountable, for the law was always accompanied with a proviso for cases of urgent need, and the latter was taken full advantage of in many a locality. The prohibition of indefinite division, however, and that of permanent transfer, formed two legal maxims that were never completely forgotten.

That the maxims were at the same time respected and evaded is highly significant, for it would seem to indicate the transitional state of the peasant's proprietary right over cultivated land. It was impossible positively to forbid him from disposing as he wished of his land, which he had long been accustomed to regard at least as much his own as the lord's; nevertheless, the feudal authorities shrank from admitting that the title over the land had passed to its cultivator. Nor could they even entertain such a thought, so long as their point of view was at all feudal, that is, so long as the means of maintaining their military functions were supplied by the agricultural land over which they could not imagine they had lost a right of superiority. Hence they avowed that they would be failing in their duties as benevolent rulers if they tolerated unlimited freedom in dividing and alienating land, which would result in making rich peasants richer and the poor poorer. It would, however, appear that it was not their paternalism alone, but also the controlling motive that transactions in landed properties should not be allowed to affect the revenue of the feudal State, that impelled the authorities to continue to interfere with them. This motive more than any other would seem to have determined the degree of latitude granted for the division and alienation of peasants' holdings. One would almost say that the Japanese peasant would have been the full owner of his land, but for the nature of his taxes.

(37) *Tenant farming.* The reflections of the last Note receive further confirmation from the conditions of tenant-farming. The limited right of alienation did not prevent the rise of comparatively large land-holders who employed tenants and laborers on their farms.

In some instances, single holders held entire villages, (e. g., see *TMK*, f. III. pt. 郡境, No. 4). The tenures of the tenant-farmers showed a great diversity, and their conditions duplicated certain features of the general destiny of landed property described in the preceding Notes. Land—if we confine ourselves to rice-land—was let for a term ranging between one and twenty or more years, often accompanied by no written statement, and the owner himself paying the taxes. The land might be revoked on due notice, if its cultivation was neglected and rent unpaid, but leases over twenty years were usually considered permanent, and could not be revoked but for exceptional reasons. Even an annual lease tended, notably in Echigo, to become permanent, and there were, as in Sendai, leases that were from the outset considered permanent, and could not be terminated even if the tenants would. The longer and permanent leases were sublet or transferred with ease in Echigo and Tosa, the tenants paying all the taxes due from the land, and considering themselves as good as proprietors. In Tosa and other western provinces, the real proprietor was called the 'holder of under soil' (*soko-chi mochi*, 底地持, or *shita-tsuchi mochi*, 下土持), and the tenant the 'holder of upper land' (*uwa-chi mochi* or *uwa-tsuchi mochi*, 上地持, 上土持), or, as one would say, of superficies. (*Ish*, 72; *To*, XII, 621; *TMK*, f. I, pt. 借地, No. 1; *Mkr*, 517—545.)

It is impossible to estimate the relative extent of tenant-farming in the whole of Japan in this period, but it may be inferred to have been small, though probably increasing. Cf. *Mi*, I, ii, No. 15. During the present reign, when the old restraints of division and alienation have largely been removed, and the tenants have relatively increased, about a third of the cultivated land in Japan Proper is estimated to be under tenant-farming, and probably as much as a fifth of the peasantry consists of tenants, part owners and part lessees constituting more than a half. (Cf. *Japan in the beginning of the twentieth century*, compiled by the Department of Agriculture and Commerce, Tokyo, 1903, p. 90; *Ngh*, 131.) Also see Note 15, above. Under the Tokugawa, the proportion of landholders to tenants must have been higher. This remarkably large percentage of landholders in the entire peasant population, together with as remarkably a small percentage of large landlords, constitutes a great fact that lies at the bottom of our whole subject. It is hoped that, before the paper is gone over, both the importance of this condition and the reasons therefor may be patent to the reader.

(38) *Change of residence*. The passing of a land-holding peasant from one Fief to another was not allowed, except under the not always practicable subterfuge that he was to become a member of a religious house in the latter. There was, however, less difficulty for a landless peasant to move, for his absence would not affect the Fief's revenue.

A man might, without relinquishing his present holding, succeed to a holding in another village within the same Fief, provided that the first holding was taken care of by his relatives and they paid the usual taxes. The census of the first village generally remained unchanged, despite the moving of one of its members, if his family stayed and if the title over his holding continued the same. It was on the holdings

that the taxes were levied, and it mattered little whether the holders lived in the village. In the second village, the new resident either was registered as a full citizen, or merely had his domicile, and paid the village dues, not the public taxes, except for the new holding to which he had succeeded. Sometimes a removal was authorized of a peasant without any holding in the village in which he wished to live, and then his financial obligation in the original village was of course uncanceled. No change of abode could in any event occur without an explicit sanction by village officials or Bailiffs.

In some localities, old residents of a village exercised a strong moral control over the new comers, whose continued presence they would refuse to tolerate, if they proved unworthy during a term of probation. Likewise, the villagers whom a man left behind sometimes demanded what was called farewell-money.

(*TMK.* z. II, pt. 入籍. Nos. 3 and 4; *Mkr.* 231—267.) Also see Notes 74 and 144b. below.

(39) *Marriage.* The passing from one village into another of a woman in marriage affected little the fiscal issue of either, and hence met no official interference. A marriage between persons of different Fiefs was, however, difficult, though not impossible if the woman was first adopted as daughter of a peasant in the man's village. Marriages between villages of the same Fief were contracted with merely formal sanctions of officials, while within the same village marriage or divorce involved little official formality, the act often preceding its registry by months or years. (*Mkr.* 45—65, 70, 105—116.)

It should be noted that, while official interference was absent, there was not wanting a vigorous moral sanction of the kin and of the village over all matters of marriage and divorce.

Nor should it be forgotten that when an increased population was desirable for the Fief or the village, marriages were encouraged by the authorities with paternal care. (e. g., in Yonezawa under Uesugi Harunori; *YZS*, 530—531, 746). See Note 140, below.

(40) *Right of pursuit.* It has been seen (in Note 33, above) that the land deserted by the runaway was not always confiscated. Nor was it necessary for the authorities to pursue him, if he owed no debts and no taxes in arrear, for the village was responsible for the taxes to be levied on all the taxable holdings within its limits, no matter if some of its members were absent. Either the runaway's relative or friend, or any other willing person, or the entire village, would be compelled to keep the deserted land under cultivation. Sometimes, when such adjustment was readily made, the disappearance of the person was not even reported to the Intendant or Bailiff, or, if properly reported, his name was not cancelled from the village census, until it was certain or probable that he was no longer living. A search was often ordered to relatives and villagers, but the degree of eagerness with which the search was conducted depended on the interest these men personally had in the matter.

If the runaway was in heavy debts or had repeatedly failed to return taxes, those persons who were liable to be held responsible for satisfying

the claims were ordered, very often on their own request, to institute a search lasting for a definite period, usually six months. Passports were supplied to pursuers for travelling in other Fiefs. During this time, periodical reports were made of the progress of the search, which thereafter was definitely prolonged (永尋). Lack of zeal in pursuit, if it was brought to official notice, and if it was accompanied with a possible failure to meet the claims, was punished with a reprimand, sometimes accompanied by a fine. The property of the deserter would be forfeited, in default of a relative or friend to maintain it and pay the arrears.

Thus, one never meets an instance of a rigorous pursuit conducted by the authorities themselves. From their fiscal point of view, land was more valuable than personal service, and the dues from the land, than the land itself. These dues and the village responsible for their payment were two things which had made the lord's right of pursuit lose much of its reality.

At Saga, a relative of a criminal runaway was imprisoned for fifty days, and, if the latter returned, he was either banished or killed, but it is evident that this severity was intended as exemplary punishment for such-like misdemeanors. It did not accompany a real right of pursuit. Elsewhere returning runaway does not seem to have been so harshly treated; in some fiefs which were particularly lenient, he was welcome, and was restored to his original estate, even when the latter had been taken up by a relative.

(*TMK*, z. II. pts. 失踪, Nos. 5, 7, 9, 10, 13, 26, and 除籍, Nos. 3, 9, 12; *Mkr*, 169—230; *Tk*, VIII, 20—21; *Jk*, VII, 70—86.) See, also, Notes 133 and 144b, below.

In the first years of the régime, however, when the warrior's direct power over the peasant was presumably greater than in later years, and when the idea of village-responsibility had not been elaborated, the pursuit of the non-criminal runaway was somewhat more strict, though generally not rigorous. At Iya-yama (cf. Note 14, above), it was an offence to retain a person in any part of the whole district who had run away from any other part. (A. D. 1607—*DSR*, XII, v, 321). At Iga and Ise, Bailiffs were responsible for the restoration of deserters, which probably meant, in practice, the collection of the taxes the latter owed for their estates. (A. D. 1609—*ibid.*, XII, vi, 586); at Okazaki, the wives and children of the remaining peasants in the village were imprisoned until the runaway was found. (A. D. 1611—*ibid.*, XII, vii, 1164—1165). The latter case was exceptional, for the Fief then needed labor for unusual public works. In some places the runaway was not molested if he remained within the same Fief. (A. D. 1611—*ibid.*, XII, vii, 1163). One fails to discover any instance of a concert of Fiefs for the pursuit or search of one another's deserters. (cf. A. D. 1611—*ibid.*, XII, ix, 230). The nearest approach to this was the law, by no means universal, that a runaway should be delivered if claimed from his original Fief or district. (A. D. 1609—*ibid.*, XII, vi, 772). Even if so claimed, however, he needed not always be restored, according to an order of the Suzerain's government, if his desertion was due to the bad government of an Intendant or a Bailiff (A. D. 1603—*ibid.*, XII, i, 206). In all these instances, two things will be

found to be common: first, the duty of search, wherever it existed, devolved primarily upon peasants; second, the reason for the search was fiscal, and not personal. Already the cumbersome and ineffective method of pursuit was giving place to the later system of the joint financial responsibility of the village as described above (A. D. 1608—*ibid.*, XII, v. 832).

(41) *A good lord.* Uesugi Harunori, pseudonym Yōzan, (1751—1822), is always cited as an exemplary lord, and his life largely influenced contemporary and subsequent administrators. From his boyhood he never ceased to study Chinese classics, as was customary with every well-bred feudal noble, and deeply imbibed the words of wisdom they contained on the care of the people. When he succeeded to the barony of Yonezawa at the age of sixteen, he took a secret oath to a deity that he would strive to be the true "father of the people". All his subsequent years were spent in an ever-increasing solicitude for the welfare of the peasants. With his continual struggle against obstacles, and his constant practical sense, benevolence, and unremitting industry, he achieved an incredible degree of success in building up new industries, improving agricultural conditions, reforming rural customs and morals, and making contented and loyal subjects of the once impoverished, dissatisfied peasants of the fief. His unbounded love of them found response in their beautiful affection and veneration for him. His death, which occurred in 1822, was lamented by all the Fief and all lovers of good government throughout the country. (YZS; NTK; Uyz; Om. vi. sup. 151 ff.)

Almost as illustrious for good rural administration are the examples of Tsugaru Nobumasa (1646—1719), lord of Hirozaki; Maeda Tsunatoshi (1644—1724), lord of Kanazawa; Hosokawa Shigekata (1718—1785), lord of Kumamoto; and Matsudaira Sadanobu (1759—1829), once lord of Shirakawa. (Thk; KSK; Shō; Gi; Shz. XVII, 1085—1125; XIX, 1—30, 525—542, 880—893.)

(42) *Study of rural conditions.* An earnest study of the life of the silent peasant was another tradition in the political lore of China and Japan. A lord who was brought up amid court ladies in ignorance of the use of the sickle or of "the tree on which rice grew", was unfortunately not an altogether fabulous figure during the later years of this period, and his appearance was a curse to his fief. If his councillors had as low a sense of duty as he, his rule was certain to bring a disaster upon his house and his people.

All good lords had recourse to several well-known measures of obtaining intimate information of popular conditions. One of them was to raise efficient men of good birth of the peasant class to responsible posts in the rural administration. Land-survey, irrigation, and other important work were entrusted to their care, often with great success. (Cf., e. g., Gi, I, 22, 30—31; the case of Horie Arashiro employed by the suzerain, Tbf. 793—794.) Another measure was to establish a close connection between village-officials and bailiffs. (e. g., see YZS, 98, 104, 106—108; 804—806. Zo, I, 1030.) Still another and always commended mode of approach was the Baron's frequent tours of the Fief under pretexts. (DSR, XII, v, 156; Thk, 119; Gsr, 158; etc.). These often took the form of hawking, which, save a brief space of time at the end of the

seventeenth century, was a universal pastime of Suzerains and Barons throughout the period. Besides affording the much needed diversion and free exercise, the sport had the great value of bringing the lord out from the enervating influences of the inner chamber and into the heart of rustic life. It may be readily imagined that a sympathetic and observant lord could learn peasant conditions in a day of the game more than he could in years of study from treatises on rural administration. Ieyasu (e. g. *DSR*. XII. xiii, 73) and Yoshimune, and many good lords, made capital uses of this sport, visiting the poor, rewarding the virtuous, hearing complaints, discovering hidden talents, and, not seldom, testing the character of vassals and peasants.

Like many other well-conceived measures of the period, however, falconry was prone to abuses in the hands of an inconsiderate lord or his ignorant retainers. Places reserved for the fowling and for the brooding of falcons were often too extensive, and were protected against trespassing with too great severity. Hawks were sent up to Edo or distant castles, and then brought out into the field, with too much pomp, by officials who would disport themselves luxuriously at the expense of the villagers. When the lord himself came a-hunting, the nuisance was sometimes extreme, all the village being forced to run and wait upon the fowlers, who would perhaps heed neither the time nor the field of the peasant. Even under the most scrupulous lord, and with the strictest laws, some of these evils were unavoidable. (For falconry, *DSR*, XII, ii, 86—87, 521 ff., 547, 584, 789—790. iii, 604—605, 631, iv, 464, 558, v, 116, 158, 530, 965. viii, 83, 952—953, xiii, 1, 26, 36, 73, 213, 383, 669, etc.; *To*. IX, 614—615, X, 145. XIII, 530 ff., 555—556, 704. XIV, 320—336, 360—361; *Zo*. II, 931—933; *Gi*, I, 35—36, IV, 2—3; *Tnk*. 134—135, 190; *KB*, ii; *Jg*, II, i, 22; *Jo*, X, 10—11; *Jh*, X, 35—36; *Mi*, II, iv, No. 26; *TKR*, I, iv, 45—55; *Sg*, ii, 52—54; *Yns*, 17, 79—80; etc.) (The art of falconry began early in Japanese history. It was so universally practised and so highly developed, that Yashiro Hirokata devotes to it twenty-seven chapters, Bks. 179—188, 473—490, of his encyclopedic work *Ko-kon yō-ran kō*, 古今要覧稿, 584 chapters, 1821—1840).

(43) *Ideas of paternalism*. "The lowly peasants in ease today forget to think of the troubles of tomorrow. They would not appreciate the best law of the government if it causes them immediate inconvenience." The Bailiffs should frequently travel in the villages and study their conditions. "They should sometimes explain to leading peasants how beneficent the laws and orders are If there be disorderly villagers, they should be speedily punished. Then the people would respect and love the authorities. When their respect and love are assured, there would be no just order that could not be executed." (From an order to Bailiffs at Yonezawa in A.D. 1804. *YZS*, 804—806.) "Good government of the peasants consists in guiding them in such a manner that they would be industrious even unconsciously They are innocent and thoughtless: they should be led with both mercy and severity." "By mercy is meant winning through humanity; by severity, strict and swift punishment of wrongs. Mercy alone would tend to laxity; severity alone, to harshness. Both should be used according to circumstances."

(From similar orders, A. D. 1770. *Ibid.*, 80—88.) "It was said of old that peasants were easy to employ but difficult to govern. If they were well cared for by the officials, they would likewise care for the latter." (*Ibid.*) "If you go to them with your minds filled with the desire to improve their welfare, your countenance and tone of speech will unmistakably reflect it. They will never turn angry faces at you, if you yourselves do not show them false dignity." (From another order in A. D. 1777. *Ibid.*, 262.) "Nothing can be enforced against the peasant nature. The peasant nature is the genuine human nature If you ran counter to it, the peasants would not submit, and all the forces in the world would be unable to bend them. Having little sense of duty [such as inspires the warrior], the peasants are unable to control their feelings, but think only of their convenience. Hence it is said that no order contrary to this simple nature could be executed. Although they have a fear of punishment, they are nevertheless apt to violate a law which causes them present inconvenience. No government has ever endured against the peasant nature. It is, therefore, essential that the officials should learn to like what the people like, dislike what they dislike, and care for them with the same tenderness and wisdom as the parents bestow on their children." (A. D. 1770. *Ibid.*, 88—89.)

The following remark is attributed to Ieyasu himself:—"The amount of the taxes to be levied on the peasant is like the quantity of bait for the hawk; too much and too little are equally bad." *Tsk*, II, 48.

"It is a great mistake to suppose that the common people would do as the officials please," said a memorialist: "They would be patient in small things, but never obey and flatter the authorities, as does the warrior of to-day, when they are unjust It is the beginning of a trouble to suppress the peasants with mere official dignity." *Ibid.* 88.

(44) *Following and knowing*. 民可使由之, 不可使知之. *Lun-yu*, VIII. 9. There is a different construction of this famous saying, according to which a free translation might be given as follows: "The people may be guided by injunctions, but may not possibly be enlightened as to their reasons." It is implied that the people are at liberty to learn the reasons in accordance with their individual intelligence, but it is physically impossible to make every one understand them. (See Chu-hi's commentary and K'ang-hi's Imperial edition. Nemoto Tsūmei, also, gives a similar interpretation in his *Ron-go kō-gi*, 根本通明, 論語講義, Tokyo, 1906. pp. 297—298). Whether correct or not, it is unlikely that this was the sense in which the saying was commonly understood in feudal Japan. The difference of interpretation depends largely on which phase of the complex meaning of the auxiliary 可 is emphasized.

(45) *Size of peasant's estates*. The author of this remark was a man of the Sendai fief (*SDS*, V, 9), where the maximum limit of the peasant's estate was fixed in 1728 at 5 *kwan* of productive value, equivalent at least to 50 *koku*. This limit applied, however, only to the old land registered in the official record, and not to land newly opened or acquired. Later, it seems, land acquired since 1787, also, was submitted to this limitation. It was roughly calculated that an estate of one *kwan*

in productive value could be managed by three men with a horse and support a family of five persons. (*SDS*, I, 9; V, 9; *Mkr*, 332.)

It is rather rare to see, as in Sendai, the maximum limit of an estate defined by law, although it was very common to prevent aggrandisement by a small number of peasants by limiting the freedom of alienating land by sale.

As for the minimum limit for the peasant's estate, which became almost universal under the Tokugawa, it appears that it did not begin to be defined with much rigor till the division of land, which was comparatively free during the first years of the period, was found to be going too far (cf. *Bms*, 11—15). In the first half of the seventeenth century, there were near Edo many peasants each holding as little as 6 or 7 *koku* and unable to keep a horse (*To*, XII, 90). Probably an earnest effort to restrict the division of land dated from the middle of the century (e. g., in 1656 at Okayama. *BK*, III, 7—8). Very soon it is found that the maximum extent was fixed, in the Suzerain's Domain-land, as 10 *koku* (49.6 bushels) of hulled rice in productivity or 1 *chō* (2.45 acres) in extent. (*To*, XIII, 315, 319; *GGI*, I, 2, 18; II, 5; III, 1, 2, 7, 16; *TMK*, z, I, 260—261. pt. 分地, No. 1.) Similar provisions prevailed in most Fiefs; sometimes ten *koku* was the limit for the ordinary peasant and 20 for the village-head (as in Shinano). In Kanazawa, 50 *koku* seems to have been the legal limit for all. In practice, however, divisions beyond these points were tolerated under certain conditions, and servants were set up as peasants with much smaller estates. (*Mkr*, 241, 334, 369—374; *SDS*, I, 27—29; *Wig*, v, 95—112.) See also Note 64 below.

That the laws limiting the size of an estate by restricting the alienation and division of land were never literally enforceable has already been suggested (cf. Note 36. above). That they, however, despite many transgressions, achieved their aim to a remarkable degree, may be established from the fact that, at the general land survey made in the early years of the present reign, a large majority of the peasants were found to be holders of small estates the average extent of which approximated the minimum limit established by the Tokugawa government. There were a little more than 6 million landholders, and more than 85 million entries of cultivated land. Each entry averaged 12.7% of an acre, and each landholder's estate, 14.2 entries, or, about 2 acres. (*Chk*, 171.) To this day, Japan remains a country of extremely small lots and small farming (*Japan in the beginning 20th century*, 98—99, 115), and the fact constitutes for the nation a most important economic condition. While this phenomenon has been largely due to the hilly nature of the country, it is apparent that the persistent policy of Tokugawa authorities to limit the size of the peasant estate has contributed to this result. It will be seen later that there were two other important reasons: namely, first, that the principal form of agricultural labour being manual, the working capacity of a peasant family was very limited; and, second, that the relatively high level of the taxes in comparison with rents, together with the difficulty of buying land, prevented the appearance of many large landlords.

(46) *Financial publicity.* There is a little confusion in the general understanding of this subject. Some think that every detail of public finance was open to the people, while others say that strict secrecy was observed. The truth is that some things were open and others concealed. What was not always withheld, and was in the Domain-lands ordered to be carefully inspected by the peasants, was the registered productivity of each piece of cultivated land, and the annual apportionment of the public taxes to each landholder, as well as the receipts and expenditures of the village finances. (Note 59, [IX, 5]. [XI, 11, 12], [XXVII, 3].) Even this limited publicity was not granted in all the Fiefs. As for the manner of determining the productive capacity of a piece of land, which was in some localities bewilderingly intricate, and also the annual accounts of the Fief or the Domain-land as a whole, these were, even if the peasants were capable of comprehending them, never published among them, though some of them might learn a little by hearsay. Cf. *DSR*, XII. xi. 168; *SDS*, II. 20—21. 28; V. 9ff.; *Uyz*, 137—138; *To*, X. 734; XI. 568—569; XII, 269; XIV. 54. See also Note 110, below.

(47) *Publicity of the penal law.* For more than a hundred years after its foundation, the Tokugawa government made no attempt at an authoritative compilation of penal laws. The third Suzerain, Iemitsu (in office, 1623—1651), was not overjoyed when a private compilation of court decisions was made, for he thought that, no two cases of human disputes being precisely alike, precedents might hinder true justice (*To*, X. 1090—1092), so strong was the principle of equity and discretion. (Cf. Notes 23—25, above.) The need of authoritative compilations, however, must have long been felt, when the eighth Suzerain, Yoshimune (in office, 1716—1745), authorized a collection of edicts and orders of his predecessors, and himself assisted in compiling notes and orders concerning mainly judicial procedure and penal law. The latter (known as *Ku-zhi-kata o sadame-gaki*, 公事方御定書), was completed in 1742, and was augmented twenty-five years later with later laws as well as old pertinent materials, (which new edition is substantially our *TKR*, II). *To*, XIV. 214; XV. 249. About 1790 was made a briefer edition (*O-sadame-gaki hyakka jō*, 御定書百箇條, or. *Kwan-sei ko-chō sei-ten*, 寛政更張政典). The substance of these works has been done into German by Otto Rudorff in the *Mitteilungen der deutschen Gesellschaft für Natur- und Völkerkunde Ostasiens*, Band V. Supplement - Heft. Yokohama, 1889, S. 32—133.

These works were intended as a guide to the judiciary, and it was explicitly stated that they could not be expected to anticipate all future cases, to some of which it might be incongruous to apply principles contained in the compilations. (See Preface to the last work mentioned, the *Kyū-baku-fu o sadame-gaki*, 舊幕府御定書, in the *Hyaku-man tō* series, 百萬塔.)

These penal works were followed by very many private memoranda, more or less of the same nature, and some worthy compilations of general laws. (Cf. *KK*, IV, iv—vi.)

They nearly all related to laws for the peasant and merchant classes.

Any sly attempt at publishing laws and customs of the warrior class was met with severe repression. Nor should it be forgotten that most of the compilations contained laws which were intended primarily for the Suzerain's Domain-lands. Similar works in Fiefs (such as our *BK* and *BR*) were fewer and less extensive.

No penal compilation was allowed publicity. Some of the works of the seventeenth century that have been mentioned bear the post-scripts that they should be shown to none but the three councillors of the Suzerain, who had the right to sit at the high court of justice (*Hyō-jō sho*, 評定所). It was but true to human nature, however, to wish to see a hidden treasure because it was hidden. The authoritative penal compilations, therefore, found their way, in more or less imperfect copies in manuscript, into the libraries of many officials and commoners, where they were carefully concealed from the authorities. These copies have, since the fall of feudalism, been coming to light through second-hand book-dealers, some of them bearing titles indicating anything but the nature of the work. A copy on hand contains a curious preface, dated 1812, as follows:—"There is an old chest in my warehouse. One day, as I examined its contents, which were all worm-eaten manuscripts, I discovered these five volumes. They bore no title, but I found that they contained what might be called laws of the government. How my house came in possession of these books I had no means of telling, as they were very old. Since they should belong to the authorities, and should not be here, I had a mind to put them in fire or sink them under water. However, I did not like to destroy them. I have repaired the worm-eaten parts, rebound the work in four volumes, and now write this preface, and conceal the work in my warehouse. No one should see it. My descendants should keep it in secrecy, as if they did not know whether it existed or not, and as if they did not remember whether they had read it or not. Learn from its laws of the authorities only for your own enlightenment, and be careful not to tell others about them. In order that my intention may be evident, I give this work the title *Fuse-ya no ki*, [? a tree by an humble hut], and conceal it in the warehouse. Tate Anshū, at Yushima, [Edo]."

The statement that the penal law was never officially published requires some qualification. Although the peasant was usually told what to do and what not to do, but not how he would be punished for doing what he should not do, it was of course impossible to conceal the penalty for a very common offence, as, for instance, excessive charges for the post-house service. It was also desirable to let the people know the extreme severity of punishment for an act held to be particularly odious, such as gambling. (See *KR*, I, Nos. 13, 16, etc.)

(48) *Law and morals*. How largely these coincided with each other, not only in form, but also in matter, will be seen in Notes 55 and 59, below. From remarks given in Note 43, above, it will not be difficult to see that the very point of view of the rural administrator could not help being largely moral. Law and morals were undifferentiated rather than combined. When toward the end of the eighteenth century unusually large numbers of peasants were punished for unlawfully banding

together and rioting, the suzerain's government ascribed the increase of the cases, not to the evil-mindedness of the criminals, but to their ignorance and to the want of zeal on the part of village-officials to admonish them. (*To*, XV, 539, 657).

(49) *Right of appeal.* That a chain of delegation and responsibility, however carefully forged and tightly drawn, would be unable to hold a State in perpetual peace, and that the best conceivable equilibrium between law and equity would fail to prevent all injustice, was frankly admitted by practical administrators of ancient China and feudal Japan. They provided for certain rights of the people to appeal and petition even to the highest authority. "To stop the mouths of the people is more injurious than stopping the course of a river," Confucius is said to have remarked; "The river would overflow and destroy many men. The people would act likewise. Therefore, engineers dredge rivers and direct their courses, and rulers permit the people to express themselves." "If the people were not allowed to give vent to their thoughts," says an official instruction in Yonezawa, dated 1778, "their resentment would be pent up, and burst forth at a misfortune. When the people are silent under bad government, they are none the less lamenting it; if they were allowed to express themselves, the authorities might discover good points in their words, and at once correct the wrongs." (*YZS*, 261.)

In Japan the possible sources of wrongs for the peasants were: 1. a bad Suzerain or Baron or his councillors; 2. a bad Intendant or Bailiff and his subordinates; 3. bad village-officials; and 4. bad commissioners especially appointed by the authorities to take charge of particular affairs of rural government. Of these, the last three, being in immediate contact with the people, were the most frequent origin of grievances. Every effort was made by the higher authorities to protect the people from the possible arrogance or greed of these officials, who received minute instructions regarding their conduct toward the villagers. The latter, also, were continually reminded that the officials had been forbidden to receive presents, to be entertained, to enter into pecuniary transactions with the people, or to do aught to involve them in needless expense or hardship. The annals of the period abound with instructions and orders of this nature. (Cf. e. g., *DSR*, XII, v, 761; vi, 349; vii, 725; ix, 225; *To*, X, 666, 734; XI, 692; XII, 16—17, 269; XIII, 315—320; etc., etc.) Such was, however, the force of the theory of delegation that no law could completely prevent the meek peasants from being imposed upon by irresponsible officials. It was largely against abuses from these quarters that the right of appeal had to be granted and gradually though imperceptibly increased. (For the earlier form of this right, see Note 59, [II] and [III], below. Compare this with the later form as described below in this Note.)

There was another feature of this subject which should not be forgotten. If we turn to the first of the sources of wrongs enumerated above, we shall observe therein two forces one of which operated against the other. It was the traditional policy of the Suzerain's government at once to give to the Barons a large degree of autonomy, and to weaken them under every justifiable pretext. The first half of the policy served

to multiply opportunities for the second, and this result was not the least frequent in judicial affairs. A Baron, or, to be more exact, his council, having the power of life and death over the peasants of his Fief, and, in judicial and fiscal matters, being curbed by nothing but customs and conscience, might be betrayed into repeated acts of oppression, until the patient peasantry would at length rise in furious mobs or resort to a direct appeal to the government of the Suzerain. The riots would be severely repressed, and the appellants, as we shall see below, delivered up to the Baron as disloyal subjects. For, nominally, there was no appeal from the Baron, especially from the eighteen principal Barons, to the Suzerain. However, in case such a riot or appeal took place, the Suzerain might, provided the grievances were real, degrade or replace the Baron and have the wrongs rectified as far as possible. An appeal, therefore, over a Baron to the Suzerain, was explicitly forbidden but tacitly permitted to those brave peasants who staked their lives therefor. Cf. *Wig*, i, 84—85.

Let us now describe the normal process of appeal and petition. The peasant could address the authorities only through village-officials, whose certificate or presence was necessary if he would bring the matter to the Intendant or Bailiff. Without this formality, no ordinary petition or complaint would be entertained. (See *GGI*, II, 21, 23—24, 37; Note 59, [XX], below.) A complaint, however, against the village-head or subordinate of the Intendant or Bailiff, might be lodged directly at the latter's office, but this had to be done without disorder and with due notice to the village-officials, (*ibid.*, II, 24, 31, 37; *DSR*, XII, v, 581; *NTK*, 344—346).

An appeal could still be made from the Bailiff to the Baron's council or the Baron himself, again after notifying the Bailiff of the appellant's intention. This right was exercised from the beginning of the period (see *DSR*, XII, ii, 584, 586; iv, 196; v, 319), and probably dated earlier. This was the law, but its practical merit must have varied much in different Fiefs and at different times, according to the character of the Baron and his advisers.

A corresponding appeal over the intendant was carried to the Suzerain's high court of justice at Edo. The *Hyō-jō sho* (評定所, place of determination), as the court was called, was begun in 1631, and, as it was finally constituted, heard, besides appeals, disputes involving the jurisdictions of two or all of the three high commissioners of the Suzerain (i. e., *Zhi-sha bu-gyō*, 寺社奉行, commissioner of religious institutions, *Machi bu-gyō*, 町奉行, of the municipality of Edo, and *Kan-jō bu-gyō*, 勘定奉行, of finance) or unusually important cases in each commissioner's jurisdiction, and complaints and petitions from Barons and the Suzerain's lower vassals. (See *KR*, I, Nos. 1—12, II, Nos. 1—8; *TK*, II, i, 23—143, 403—502.) Although it was forbidden to local officials to suppress peasants' appeals (*To*, XIII, 316, 1082), it nevertheless became desirable, when the business of this court multiplied, to relegate it as far as it was practicable to the commissioners (*bu-gyō*, 奉行) at Kyōto and Ōsaka, and to order the peasants to settle their affairs wherever possible at local courts (*KR*, I, No. 15, II, No. 1; *TK*,

II, i, 192, 403ff.; *To*, XIII, 1178). Besides, when they appealed to Edo, they were to notify the local officials, and bear the expenses. (*KR*, I, Nos. 3, 6, II, No. 24; *TK*, II, i, 71ff., 92f., ii, 98ff.; *To*, X, 298, 301; *GGI*, I, 30.) Cf. *Wig*, i, 87—94.

From 1721, the Suzerain Yoshimune ordered a box (*me-yasu bako*, 目安箱) to be hung before the court at Edo, and, from 1726, in Kyōto and Ōsaka also, for the purpose of receiving appeals and petitions from common people and outlaws (*To*, XIII, 1178, XIV, 214—216). He himself examined their contents. That this would encourage appeals and bring about good results, as it did, in the hands of a good Suzerain might be imagined, but later it happened not seldom that corrupt commissioners intercepted appeals (e. g., *En*, 19). Sporadic efforts were made to restore this institution to real service (e. g., *Zō*, I, 112), but there is little reason to believe that they were followed by continued successes. Like so many other discretionary measures of this bureaucratic government, the use of this device, as has been the fate of similar practices in China, depended entirely upon the frail human nature of the officials.

When the wrongs of an Intendant were real, and when they were brought to the commissioners' notice in such a way as it was impossible to deny them, a summary justice could be expected by the appealing peasants (e. g., *DSR*, XII, i, 356). If the court failed to satisfy them, there was yet another way open to them, namely a direct appeal to the Suzerain in person while on a visit or in hunting. This was done in an appeal, not only from an Intendant, but also from a Baron. This irregularity was punished with imprisonment or death, and if the appeal was against a Baron, the appellant was guilty of the double offence of transgressing on the dignity of the Suzerain and of violating the rule that there was no appeal from a Baron. However, if the Suzerain happened to be eager for justice or for extending his power at the expense of the Barons, the complaint would be examined and satisfied, and the unjust Intendant or Baron degraded (e. g., *To*, IX, 614—615, XI, 929, XIV, 285). The following are two well-known instances of appeals to Edo.

In 1651 the young Hotta Masanobu succeeded to the lordship of Sakura, Shimo-osa, and was appointed a councillor to the Suzerain. Taking advantage of his youth and his absence in Edo, his councillors suddenly increased the land-tax to an enormous extent, and, rejected petitions from all the village heads of the Fief to reduce it to its former level. Large numbers of peasants sold their holdings, and, dividing their families, wandered out. In 1654, more than three hundred representatives repaired to Edo and complained at the residence of Masanobu, but were not listened to. Then a petition was made to one of his fellow-councillors, which also was returned. Kiuchi (better known as Sakura) Sōgorō, one of the six representatives who had remained in Edo, boldly presented a petition to the Suzerain Ietsuna, as he was on his way to the temple at Ueno. The latter delivered the petition and the six men to Masanobu. He still believed his councillors, and allowed Sōgorō and his wife to be crucified, his four children to be beheaded, and the other five leaders to be banished. Later, however, the tax was restored to

the original rate, and the councillors punished. In 1660, Masanobu forfeited his Fief for another offence. Sōgorō has been deified by the peasants, and his story has been dramatized into a thrilling play. (See the *Tei-koku zhin-mei zhi-ten*, ed. 1904, 1428—1429; the *Han-kan-pu*, VI, pt. Hotta.)

The district Yashiro, in Uzen, was severed from the Yonezawa fief and restored to the Suzerain, in 1664, but its government was still put under charge of the same Fief. In 1863, the peasants of the thirty-five villages of this district complained unsuccessfully, even in Edo, against an unjust treatment from the authorities of Yonezawa. Finally, the petition was put in a beautiful lacquered box bearing the emblem of the Suzerain's house, and was purposely left in a restaurant, whence it was at once taken to the Suzerain. The district was definitively confiscated from the Fief, but the chief appellant was delivered to the lord of the Fief, who crucified him. (*Dch*, 4373; *Dai Ni-hon zhin-mei zhi-sho*, 2nd. edition, 1891, III, 36—37.)

(50) *The Chinese house-groups*. This institution is considered as old as the Chóu dynasty, and has, as will be seen in the following sketch, persisted throughout the long history of China. According to the *Chóu li* (周禮) and its commentaries, each of the six *hiang* (鄉) and six *sui* (遂), into which the Inner Country of China was divided, was organized as follows: in the *hiang*, five houses formed a *pi* (比) and were mutually (?) responsible (保, *pao*), five *pi* made a *lū* (閭), four *lū* a *tsu* (族), five *tsu* a *tang* (黨), five *tang* a *chóu* (州), and five *chóu* the *hiang*; in the *sui*, five houses formed a *lin* (隣), five *lin* a *li* (里), four *li* a *ts'uan* (贊), five *ts'uan* a *p'i* (鄙), five *p'i* a *hien* (縣), and five *hien* the *sui*. The five-house group was responsible for the mutual help and admonition of its members. This is the generally accepted view of the organization under the Chóu dynasty, although it would not be easy to prove either that the system in this advanced form was so old as the dynasty, or that, if so, it was put into universal practice. The general idea of the system, namely, that neighboring houses should with responsibility watch and help one another, and that the larger administrative divisions of territory should as far as possible be based upon this group as a unit and held together by a chain of responsibility, date apparently several centuries before the Christian era. They are found in practice in several different forms among the contending States into which the kingdom of Chóu became divided, and in Ts'in. The latter made five houses a group and two adjoining groups, consisting of ten houses, a unit with joint responsibility for the crimes of its members.

After the Christian era, the general idea, having come through the hands of various dynasties, was made under the great T'ang dynasty into a system which became the model for Japan to copy since 645. In this system, four houses made a *lin* and five houses a *pao*—this distinction is not clear, (some say, five houses made a *lin* and five *lin* a *pao*); a hundred houses formed a *li*, and five *li* a *hiang*. Under the Sung dynasty, the idea was elaborated by several administrators for use in their particular spheres, the general conception, however, being always the same.

It is not until one reaches the Ming dynasty that he finds the system

really extensively applied, as well as fully described. Barring local variations, generally ten houses formed a *kia* (甲, which was an old term), with an additional house of the group-chief (甲首, *kia-shôu*); ten *kia* formed a *li* (里, otherwise called *pao*, 保), with ten additional houses of heads (*li-ch'ang*, 里長), who each held the office in turn for a year. This personage, like the Japanese village-head, was assisted by several chiefs. Besides these, there was an elder (*li-lao*, 里老) in each *li*, who at first exercised a considerable moral influence, but who in later years of the dynasty was treated by officials as a mere publican, and in many a *li* declined to serve any longer.

An important part of the business of the *kia* was periodically to take the census of its members, in order to ascertain that none were suspicious characters and none adhered to evil religious sects.

Once in every month, the people in every *li* assembled at the public hall of the village (鄉約亭), where amid solemn music the *li-ch'ang* read and explained the Imperial instructions to the people. These instructions, which were always posted at the hall for exhibition, were intended to inculcate the spirit of concord and mutual service among peasant members. The instructions were arranged under six heads: 1. obedience to the parents; 2. respect of authority and age; 3. concord in the village, including mutual cordiality, and assistance for the sick, the poor, and orphans, and at funerals; 4. education of children, including reverence for the teachers, and rites of majority and marriage; 5. industry; and 6. abstention from evil deeds, the latter including the harboring of thieves and robbers, disseminating false stories, arrogance, extravagance, heresy, theft, quarrel, murder, disputes about water and forests, needless killing of cattle, and other offences.

The village-elder exercised certain judicial power over minor cases, though this feature of the village administration disappeared later with the elder's loss of influence.

The *li* had also a temple for the deity of the earth (里社壇) where, besides other minor rites, sacrifices were offered in spring and in autumn, followed by a feast for the peasants. On this occasion, a spokesman solemnly swore: "The people of our *li* should observe rules of proper conduct, and the strong shall not oppress the weak. Those who act contrariwise would be examined and reported to the authorities. The family of poor and forlorn persons shall be supported by the village for three years; the people shall assist each other in marriage and at funeral. Those who defy others or commit theft, fraud, or any other offence whatsoever, shall not be admitted into our company." Then the villagers sat down in the order of seniority, and passed the day in a happy feast.

There was, in accordance with a time-honored custom, another periodical occasion for conviviality of the village, (鄉飲酒禮), at which venerated seniors, ex-officials, and scholars, were given places of distinction, and the other villagers sat in the strict order of their ages, regardless of wealth.

The *li* also had its special granary (社倉), to which all the families contributed according to their means, and which was opened in case of a famine. This, too, was an old institution.

The village supported a primary school (社學), where the Imperial instructions already referred to and elementary laws were taught to such pupils as wished to enroll. It was the policy of the government to encourage the establishment of village-schools, but not to interfere with their affairs.

The laws of the present dynasty recognize the existence of *kia-shōu* and *li-ch'ang* organized in the same manner as that of Ming. They hold their office by rotation, and take charge of the affairs, including the financial, of the village. In some places, it seems, ten houses make a *p'ai* (牌), ten *p'ai* a *kia*, and ten *kia* a *pao*, each with its elected head. The Japanese authorities of the leased land at Kwantung in southern Manchuria are making use of the system of the joint responsibility of groups with considerable success in maintaining the peace of the villages against bandits and in arresting the latter.

See Prof. Tomidzu Hiroto, *Shū-dai go-ka no kumi-ai* (戸水寛人, 周代五家の組合, No. 5 of the *Hō-ri ron-sō* 法理論叢 series); *Nz*, I, 14; *T'ang lu-t'ien* (唐六典, ed. 1895), III. 9; *Ggk*, 9—10; Asakawa, *Early inst. life*, 214—215; Asai Torao, *Shi-na hō-sei shi* (淺井虎夫, 支那法制史, Tokyo, 1904), pp. 28—29, 43, 80, 185, 276, 332—336; the same author's article in the *Kokka Gakkwai zasshi* (國家學會雜誌) for April, 1906, pp. 63—84; *Tu-Ts'ing lu* (大清律), pt. 戶役, art. 糶革主保里長; the *Tō-A Dō-bun Kikai hō-koku* (東亞同文會報), No. 115, p. 30; current numbers of the *Man-shū nichi-nichi shim-bun* (滿洲日日新聞).

(51) *The group idea copied in Japan.* Beginning with the year 645, Japan entered upon the great work of reorganizing her state-system largely on the basis of the Chinese institutions of the early T'ang period. (Cf. Asakawa, *Early inst. life*; J. Murdoch, *History of Japan*, vol. 1, Tokyo, 1910, chap. 5.) The Decree of the Reform of 646 contains the following: "For the first time, make a census of the families (戸籍), a record of financial accounts, and an equal allotment of land. Fifty families (戸) shall form a *sato* (里, Chinese pronunciation, *li*), and every *sato* shall have a chief (長, Chin. *ch'ang*), whose duty shall be to examine the families (戸) and their members (口), to promote agriculture and sericulture, to forbid and examine misdeeds, and to collect the taxes and enforce forced labor." (*Ni-hon sho-ki*, 日本書紀, XXV. Tai-kwa year 2 month 1). In 652, the order was repeated: "Make a census of the families. Fifty families shall form a *sato*, and every *sato* shall have a chief. The head of the family (戸主) shall be the chief member of a house (家長). As regards the families (戸), five houses (家) shall be mutually responsible [? shall mutually protect; 保, Chin. *pao*], shall make one man the chief (長), and shall mutually examine [the conduct of the members]." (*Ibid.*, Haku-chi y. 3 m. 4. The older translations of these passages that occur in Asakawa, *op. cit.*, p. 275, and Aston, *Nihongi*, II, 208 & 242, cannot be accepted.)

In the *Ryō no gi-ge* (令義解, commentary, officially compiled in 826—833, on the Code of law which was edited in 700—701 and revised slightly in 718, 791 and 797) occur the following passages, (large letters probably indicating portions in the text of 700—701, and words of the

commentary being here put in parentheses)—“AS REGARDS FAMILIES, FIFTY FAMILIES SHALL FORM A *SATO*. (If there be sixty families [in the same neighborhood], ten of them shall be separated as a *sato* and have a chief. If there be less than ten families [in the same neighborhood], they shall be included in a larger village, and not be separated.) EACH *SATO* SHALL HAVE A CHIEF, whose duty shall be to examine the families and their members, to promote agriculture and sericulture, to forbid and examine misdeeds, and to collect dues and enforce forced labor. WHERE MOUNTAINOUS OR REMOTE AND SPARSELY POPULATED (. . . .), [*SATO*] SHALL BE MARKED OFF ACCORDING TO CONVENIENCE (. . . . If [the neighborhood] does not contain ten families, it shall be made into mutually protecting groups of five houses, and included in a large village.) . . . THE HEAD OF THE FAMILY SHALL BE THE CHIEF MEMBER OF A HOUSE. (The eldest son of the main line. . . .) . . . AS REGARDS THE FAMILIES, FIVE HOUSES SHALL BE MUTUALLY RESPONSIBLE [?], SHALL MAKE ONE MAN THE CHIEF, AND SHALL EXAMINE AND PREVENT MISDEEDS. IF A TRAVELLER PASSING THROUGH THE VILLAGE STOPS OVER NIGHT, OR IF A MEMBER OF A GROUP [保, Chin. *pao*, Jap. *ho*] GOES AWAY, THE GROUP SHALL BE NOTIFIED THEREOF. IF A FAMILY MEMBER RUNS AWAY, LET THE FIVE-HOUSE GROUP PURSUE HIM. . . .” (VIII, arts. 1, 5, 9, 10.) (For bibliographical comments of the two sources from which the above passages have been cited, see Asakawa, *op. cit.*, 7—17.)

In these passages, it is evident that the Japanese five-house group was a copy of the Chinese prototype, the idea and language of both being largely identical. One point, however, of great importance in the copy is not found in the model, namely, the 戸 (Chin. *hu*; Jap. pron. *ko*; corresponding native word. *he*), which I have purposely translated with the loose term ‘family’. It did not exclude the idea of a ‘house’, but oftener it consisted of persons living in near-by houses and mostly related to one another by blood-tie. Thus, sometimes scores of men and women formed one *ko* and had one *ko*-head. The fragments of census of the eighth century which still exist (*DKM*, I.) confirm the supposition to which some of the clauses quoted above point, that often neighboring houses were related to one another in blood. Indeed, an old record quoted in the *Ryō no shū-ge*. 令集解, commentary on the *Ryō* compiled in the latter half of the ninth century, says: [In organizing five-house groups], “Even if one family (*ko*) contained ten houses (*ka*), the family shall form its own limit [i. e. form a group by itself], regardless of the number of the houses [composing it]”. (*Ggk.* 12.) Add to these considerations the fact that in the language of China in this general period, 戸 and 家 did not differ much from each other in the average number of persons they contained, if indeed the two were not often identical, as they later came to be in Japan also. They could be confused, but not so in the Japan of the Reform period. (Cf. the excellent articles by Mr. Y. Shinmi on the Japanese family in the eighth century, in *Shz*, XX, Nos. 2—4, March-May, 1909.) Here the *village* (*sato*) was

built upon *families*, and the *group* was composed of neighbouring *houses* not infrequently related to one another. The inference is then irresistible that, as a whole, the Japanese copy of the house-group system must have been less purely administrative and more consanguinous in nature than the Chinese model.

This comparatively natural character of the Japanese institution is also notable in the group and village of the Tokugawa period. Here, however, the qualifying principle was oftener historic associations than ties of blood.

(52) *The group system resuscitated after 1600.* That the general idea of responsible groups of houses was not entirely forgotten during the long and eventful ages which intervened between the Reform and the battle of Sekigahara, is a point which falls beyond the limits of this paper. (See *Ggk*, 31—76; *Ggs*, 4—5; *Nz*, I, 6; *Dek*, introd., 74.)

As one reaches the years just before and after 1600, he finds that warriors, of the lower grades at least, were not seldom organized in groups of five or ten men responsible for their good behavior. (Under Hideyoshi, *Ggk*, 68—76; *Ish*, 78—79; *DRS*, XII, i, 773; in Yonezawa, *ibid.*, i, 638, 773, x, 43; in Saga, *ibid.*, i, 733; in Kōchi, *ibid.*, i, 736; at Uwazhima, *ibid.*, v, 402—403; in Iga, *ibid.*, v, 762; under the Mōri, *ibid.*, v, 551—554; in Edo, *ibid.*, ix, 559; &c.) Among peasants and burghers, it is probable that, though less frequently than among warriors, similar customs existed here and there. It, also, appears to have been Hideyoshi's intention to extend the system among the non-feudal, as well as feudal, classes all over the country. (*Ggk*, 72 ff.) The occasional mentions of groups found in documents of this age relating to different parts of Japan may, in some cases, refer to results of Hideyoshi's probable policy just outlined. Some other cases may be survivals of older institutions. In Mimasaka, for example, we find in deeds of sale dated 1603 and 1607 men styled 保 among witnesses, (*ibid.*, i, 855; v, 335). The ten-man groups (拾人組) in Iga and five-man groups (五人組) in Yonezawa in 1608, and the groups (組, 組合) in Ōmi in 1611, do not seem to have been new creations, (*ibid.*, v, 762, 831; ix, 224). Even if they had been recently organized, it is more probable that they were patterned after sporadic local survivals than that they were all created anew in accordance with an order of the Suzerain. The occasional *kumi-gashira* (*ibid.*, ix, 219, 224, &c.) may be heads of groups from whom evolved the later village-chiefs of the same title, (see Note 16, above). However that may be, it is certain that the groups, whether old or recent, were built upon the fundamental idea of the joint responsibility of their members. (see the above references to *DSR*).

That some places had entirely forgotten the system and had now to adjust themselves to it with difficulty may be inferred from the following example of Kyōto. "This year [1603]", says the *Tō-dai ki* (當代記, annals 1565—1615). "it happened that the burghers of Kyōto were organized in groups of ten men. This was by the Suzerain's order. All men of the city, high and low, were embarrassed, for if one man out of ten committed an offence, all the other nine would be punished therefor. This arrangement had been ordered because there prevailed robbery in Kyōto.

Fushimi, and their neighborhood. But the rich folks, being reluctant to be grouped with the poor, carried their treasures out of the city. This measure was said to have been unprecedented in the history of Kyōto." (*DSR*, XII, i, 773.) The writer is, of course, incorrect in his statement that the measure was unprecedented in Kyōto.

It is clear that from the first quarter of the seventeenth century, the Suzerain's government zealously extended the system to those places in his Domain-lands where it had died out. However, such an exhaustive institution could not be resuscitated in one day. It is found in operation about Edo already in 1626, (*Tō*, X, 64—65, 301), and, eleven years later, a comprehensive body of instructions was, through five-man groups, disseminated in the eighth Kwantō provinces and Kai, Shinano, and Idzu, (*ibid.*, 463—464; Note 59, [VII], below). Henceforth the system was continually used as the medium of securing peace and concord, and enforcing orders against Catholicism, the harboring of outlaws, the use of arms by the common people, and the like, at least in the provinces just named or in Domain-lands, (*ibid.*, X, 665, 672, 734, 965, 1052; XI, 204, 390; XII, 99, 499; XIII, 162, 770). It may be presumed that the system was fairly well installed in all the Domain-lands in the course of the seventeenth century. The search for Catholic converts and dangerous outlaws, the latter of whom, owing to peculiar conditions of the feudal organization, were gradually increasing, (cf. *Tōf*, 221—223), appears to have formed a special motive for the eager extension of the group system. A constant need for it must also have been felt in affording order and contentment to the people and in securing their sure support. The system made it possible to serve their ends at once with comparatively small cost and care to the Suzerain and with the satisfaction on the part of the people of exercising a large degree of self-government.

In the meantime, the merit of the system had commended itself to the Barons as well, who were prompted to adopt it by the surviving examples with which some of them must have been acquainted, as well as by the example and encouragement shown by the Suzerain's government. The latter advised the Barons, in 1661, to facilitate the search for Catholics by organizing groups of five men, (*Tō*, XI, 390,—Note 59, [XVI], below). As was usual with the Fiefs, however, there was a wide difference among them, both of the times in which the system was established, and of the forms it took. Some Fiefs had it, if indeed they had not inherited it from earlier times, in the first quarter (*DSR*, XII, v, 762, 831; ix, 219, 224) and even in the first decade after 1600 (*ibid.*, i, 855; v, 335). The system was in good order in Okayama in 1642 (*BK*, I, 4—12), and in Sendai in 1718 (*SDS*, I, 19), to take only cases of positive certainty. It is possible, however, that in some instances groups were not adequately organized till after 1800. (e. g., Shōnai in 1819, *Ggs*, 136).

(53) *The normal group.* All the known groups in villages were based on the same general principles and designed for the same general purposes with which the reader is now familiar. There was, however, a considerable difference in their names and forms, particularly in the Fiefs. The groups in the Domain-lands were probably all called, as in

many Fiefs, *go-nin-gumi* (五人組, five-man group), consisting usually of five—more or less—land-holding house-fathers, one of whom served as group-chief, by either election or rotation. The latter, called *fude-gashira* or *hittō* (筆頭, first writer), *han-gashira* (判頭, first seal), or the like, was seldom a very important personage in the government of the entire village. Neighbors would normally be in the same groups, (*GGI*, I, 13, 21; II, 8), but historic or social conditions largely interfered with this arrangement even in Domain-lands, (*Ggs*, 14—19). Cases were not wanting in which a group *and* neighboring houses were held responsible for offences, (*GGI*, II, 8—9; *KR*, I, No. 16; *Ggk*, 66; *YZS*, 44). Cf. *Smur*, 95—97.

To take a few variants found in Fiefs. Yonezawa changed its system several times during the period: it had five-man groups (*go-nin-gumi*) already in 1608 (*DSR*, XII, v. 831); in 1769, some of them seemed to be composed of relatives, and others of neighbors (一類五人組 and 家並五人組. *YZS*, 44, 366); in 1801, there had been groups for religious examination and for the collection of taxes (宗門組 and 所納組), which were now all incorporated into five-man and ten-man groups (*ibid.*, 743 ff.); and at the end of the feudal period, about fifteen men formed a larger group, which was divided into three smaller groups (*kumi-ai*). (*Mkr*, 143). At Iya-yama (cf. Note 14. above), every fifteen to twenty-five houses composed a group (*fu-shin-gumi*, 普請組, building group), which furnished thatch and rope when one of its members built or repaired his house, and supplied free labor till the work was completed. The houses, therefore, could not be disposed of without the consent of the group. (*Ibid.*, 217, 439.) In Suwō, the head of the five-man group was called *kuro-boshi* (黒星, literally, black star, *ibid.*, 187), the village-chiefs being designated *kuro-gashira* 畔頭, (the characters meaning, respectively, 'marginal land between rice-fields' and 'head').

These and other variations from the normal type were no doubt in some instances owing to peculiar social conditions of different regions, and in others, to the persistence of older institutions of similar nature. Among these cases of historic survivals, Professor S. Miura mentions some instances of ten-men groups and of irregular small groups of adjoining and opposite houses (*Ggk*, 66, 76). It is evident that, in many examples, abnormal types were only slowly, if at all, assimilated to the normal.

(54) *No person without group*. It was the fixed rule that every inhabitant in the village should belong to some group (*GGI*, I, 12, 13; II, 1, 17; III, 1, 15, 16, etc.). In many examples, however, only land-holders were full members of the groups, and their tenants and servants, priests attached to no temples, and the like, were included under the names of the owners of the land which they tilled or of the houses in which they lived (*ibid.*, *Mkr.*, 27—29; *SDS*, I, 19).

(55) *Edicts, sign-boards, and oral commands*. Occasional written orders were on *kaki-tsuke* (御書付) and on *fure-gaki* (御觸書). (E. g., *KR*, I, Nos. 3—6, 10—12, 19—40, etc.; *GGI*, I, 1, II, 33, etc.) Some orders came to the Intendants or Bailiffs, who transmitted them orally to the village officials or the villagers themselves. (E. g., *To*, X, 463, 665, 734, 1052, XI, 390, XIII, 318, etc.)

Public sign-boards (known as *kō-satsu* or *taka-fuda*, 高札, and *sei-satsu*, 制札, the latter term being sometimes technically applied to written prohibitory orders of the more special or less extensive applications) posted up in conspicuous places on streets, roads, or the coast, had for a long time been a common device of official proclamation, and were kept up throughout the period. (*DSR*, XII, iv, 196—197; v, 973—974; vi, 182; ix, 220; *To*, X, 298, 537, 663, 669, etc.; *Ksd*, 1513—1516.) They were revised throughout the Domain-lands in the first half of the eighteenth century and were thenceforth renewed at the change of the year-period (元) or the succession of the Suzerain, and when worn out by exposure. The nature of their contents may be gathered from the following specimens, which were seen most frequently in Domain-lands till the end of the period. (*Tk*, VIII, 10—20; *Jg*, II, i, 13—15; cf. *KR*, I, Nos. 13—18.)

[1] (About 2 feet high and 7 feet long.)

"Parent and child, brothers, husband and wife, and all relatives, shall be harmonious; mercy shall be shown even unto the lowest servants. Servitors shall be faithful to their masters.

"[Every one] shall be diligent in his pursuit, shall not be idle, and in every thing shall not exceed the bounds of his position and means.

"Fraudulent deeds, unreasonable speech, and whatever else that might do harm unto others, are forbidden.

"All kinds of gambling are strictly forbidden.

"One shall refrain from making a quarrel or dispute, and should one occur, shall not unnecessarily meddle with it. Nor shall he conceal a wounded person.

"Needless use of fire-arms is forbidden. Any one found violating this rule shall be reported. If one connives at the offence, and if it is discovered from another source, he will be adjudged guilty of a heavy offence.

"If there be thieves, robbers, or evil persons, their presence shall be reported. The person reporting will receive a sure reward.

"Do not congregate at an execution.

"The sale and purchase of persons is strictly forbidden. A man or woman servant may, however, serve for life or by heredity, if that is the voluntary agreement of the parties. If a hereditary servant or an old resident has gone elsewhere and settled down there with his family, he shall not be recalled, unless he is an offender.

"The above articles shall be observed. Any person violating them will be punished accordingly.

"Shō-toku 1st year 5th month—day, [1771].

"Commissioner."

[2] (About 1.3 by 2.1 ft.)

"Any one using fire-arms in a village shall be reported. If a person catching birds on forbidden grounds is arrested or discovered, he shall at once be reported. The person reporting will receive a sure reward.

"Kyō-ho 6th year 2nd month—day, [1717].

"Commissioner."

[3] (About 1.5 by 3.6 ft.)

"Christianity [Catholicism] has for years been under prohibition. Any suspicious person shall be reported. Rewards will be given as follows:

"500 pieces of silver to a person reporting a Padre,

"300 pieces of silver to a person reporting a Friar,

"The same amount to a person reporting a re-convert, and

"100 pieces of silver to a person reporting individuals living in the same house with Christians or reporting converts.

"The reporter, even if he be a follower of the sect, [i. e., if he has recanted and reported against other Catholics], may be given 500 pieces of silver, according to the importance of the case he reports. If any one harbors a Christian, and if the latter is discovered from other sources, the village-head and the five-man group of the place will be punished together with the offenders.

"Shō-toku 1st year 5th month—day, [1711].

"Commissioner."

[4] (About 1.4 by 1.3 ft.)

"The assembling of many peasants for any kind of evil purpose is called *to-tō* (徒黨), and the forcing of a petition by a *to-tō* is *gō-so* (強訴) and the desertion of the village by them in concert is *chō-ten* (退轉, *tai-ten*). All these offences have a long time since been forbidden. If any such case is discovered in one's own or neighbouring village, it shall at once be reported. Reward will be given as follows:—

"100 pieces of silver to a person reporting a *to-tō*,

"The same amount to a person reporting a *gō-so*, and

"The same amount to a person reporting a *chō-ten*.

"According to the case, the privilege of wearing a sword and bearing a family-name may be granted to the person reporting. Even if he was one of the offending party, he would receive pardon and reward if he reported the name of the leader.

"When, owing to the absence of any one reporting, villages became restless, if in that case there be any village that arrested offenders and allowed none of its inhabitants to take part in the concert, the principal men so doing, whether village-officials or peasants, would be rewarded with pieces of silver and the privilege of wearing swords and using family-names. If there were any other persons who assisted in pacifying the village, they also would be rewarded accordingly.

"Mei-wa 7th year 4th month, [1770].

"Commissioner."

Oral instructions. Besides the regular oral commands delivered through official channels, some Barons followed the historic customs of China of giving the people of the village moral exhortations through teachers. These were usually Confucian scholars. Sometimes they were sent in circuit through the fief, villagers assembling to receive them and listen to their lectures. In the following quotation will be seen the character of the instruction. In 1835, some dozen representative peasants of the Nagoya fief, regretting that the custom once in vogue had been discontinued, petitioned that it be revived, and said:—"... If in plain language and with persistence it were taught year after year how high was the virtue of the founder of the régime [i. e., Ieyasu], how great was the benefit of the State and its merciful government, and, as regards our daily conduct, how important it was to be frugal, to practise filial

piety towards parents and fraternal respect for elder brothers, and to be diligent in agriculture and not to fall into other occupations, it is certain that, by the grace of benevolent rule, evil customs would be changed, and all the peasants would adopt simple and sincere manners. The government, also, would be much relieved of trouble . . ." (Quoted by Mr. K. Nakamura, *Shz*, XIX, v, 12—13.)

(56) *Repetition of orders.* Cf., e. g., Uesugi Kagekatsu's orders in 1603, 1607, and 1608, repeating substantially the same ideas, in *DSR*, XII, i, 637; v, 110, 831. Group-records often refer to instructions that had frequently been reiterated, (*GGI*, I, 1, 6). The Suzerain's government was extremely persistent, dwelling continually on identical points in language slightly altered from time to time, (*To*, X, 463—464, 665—666, 672, 734—735; XI, 41, 204, 585, 706; XII, 99 ff.; XIII, 162 ff., 319—320, 485, 697, 701, etc.; *KRE*, 産業部, I, 195 ff., etc.) See Note 59, below.

(57) *Group-records.* I venture the suggestion that the custom which was rather common among the warrior class for men charged with a mission to repeat almost verbatim the instructions given them, with an oath that they would be followed, (e. g., see *DSR*, XII, v, 319 ff., xi, 360 ff., xiii, 687—688; *To*, IX, 971 ff., etc.; also see Notes 9 and 16, above), was extended to the peasant groups, and became the origin of their records. These in substance re-stated all the important instructions that had been repeatedly given to the village and enforced through the instrumentality of the group, and was accompanied by the pledge of the peasants to observe them.

The group-records came into existence only by degrees. Professor Hodzumi quotes Mr. Oda as saying that they were first made in 1664, and adds that thereby the group system was almost perfected (*Ggs*, 8, 43), but I fail to trace the first part of this statement to its source, and entertain doubts about the second. The group system itself must have been far from being either universal or perfect in 1664, (see Note 52, above). As for the group-record, in Buzen it seems to have existed in a fairly complete form in 1657, and thirty years later was probably already so complete that between that date and 1836 there was little change in the substance of the articles the record contained. (*GGI*, IV, 22, and inferences from citations throughout the work.) As we note that the model articles for the group-record compiled by the Suzerain's government in 1725 (*Ggs*, sup. 1—19) are much the same as those of Buzen in 1657 and 1687, we infer that their substance must have actually appeared in the group-records in several places about the latter dates. At least, the practice of keeping the records appears to have pretty generally prevailed in the Domain-lands in 1722. (Cf. edict *To*, XIII, 749—750.) In the Fiefs, however, the group-record was still unknown in 1737 in some places even in provinces nearest Edo, (*ibid.*, 1203—1204; *KR*, I, No. 57). It was in the making in Yonezawa so late as 1769 or 1770, (*YZS*, 89, 91). In 1786, there were some regions which had not yet returned the religious census of their villages (*To*, XV, 783); if the performance of this duty, which was one of the first *raisons d'être* of the group system, was still so remiss, one is forced to suppose that the very

system, still less the group-record, may have been but insecurely established in those places at that late date.

(58) *The reading and revising of the group-record. Seals.* For difference in the frequency of reading, see *GGI*, III. 6. IV. 20—21, 22; *Ggs*, 44—48, and for the frequency of revision, which was either annual, septennial, or indefinite, see *GGI*, IV, 22; *Ggs*, 136. The suzerain's government ordered, in 1722, that the articles of the group-records should be given to pupils in village-schools for their lessons in hand-writing. (*To*, XIII. 749.)

Seals. Each person had an officially registered seal of his own, which alone had to be used by him on all occasions. Every change of a seal was to be immediately reported to the village-head. A person's name on a document was not always signed by him, but under it he affixed his seal with his own hand. Though repeatedly warned, however, peasants were often inclined to leave their seals with village-officials and authorize them to use them when necessary. Counterfeiting another person's seal and drawing with it a false document was punishable with decapitation with exposure of the person before execution and of the head afterward. (*GGI*, I, 11. 22; II. 13—14. 28; *KR*, II, No. 62; *TK*, II, iii, 485—500.)

(59) *Laws for the peasants.* An attempt is made in the following summary to state, not topically, but chronologically, such orders and instructions as were given by the Suzerain's government to the peasants of the Domain-lands. It is hoped that this summary given in this form may be found useful to the student whose interest is more than merely institutional. (For specimens of group-records, the reader is referred to *Smr*, 177—210. For modern survivals, *GS. MK. MO, OO.*)

(I) 1603. An edict to the villages. (*TKR*, I, v, 226.)

[1] Peasants who have run away dissatisfied with the government of an official shall not be restored.

[2] Peasants with taxes in arrear shall pay them in the presence of the Intendant.

[3] Peasants shall not be killed. If one has committed an offence, he shall be arrested and examined at the Intendant's office.

(II) 1603. An edict to the villages. (*Ibid.*, 227.)

[1] Peasants running away dissatisfied with the government of an official may pay dues and live in any place in a neighboring district.

[2] If an unjust official holds a personal hostage from a peasant, the latter may appeal directly to Edo. Otherwise direct appeals are forbidden.

[3] How could the Edo government know details of local taxation? Appeals about taxation are forbidden.

[4] An appeal against an official may be made only with full preparation to leave his district.

[5] An appeal shall not be presented to Edo before the Intendant has been petitioned two or three times. A direct appeal may be made, however, if it contains complaint against the Intendant.

(III) 1608. An edict to the villages. (*Ibid.*, 228.)

[1] (The same as [1, I].)

[2] (The same as [I, 2].)

[3] (The same as [II, 4].)

[4] (Similar to [II, 3].)

[5] (The same as [II, 2] and the first half of [5].)

[6] (The same as the last half of [II, 5].)

[7] (The same as [I, 3].)

(IV) 1616. (*Ibid.*, 229.)

[1] Henceforth, when commuting the land-tax in money, the rate shall be on the basis of 3 to 7 *shō* (about 1.8 bushels) to a straw-bag of rice.

[2] The *kuchi-mai* (口米) shall be 1 *shō* for a straw-bag.

[3] If commuted, the *kuchi-sen* (口錢) shall be 3 per cent.

(V) 1626. An edict. (*To*, X, 64—65.)

[1] A person finding hawks in nest [in a place reserved for hawks] will be rewarded, and his five-man group will be excused from keeping watch over the place. A person finding a new nest will receive a double reward.

[2] Any one stealing young hawks from a nest [in a reserved place] will, with his relatives, be beheaded, and his five-man group will be imprisoned. A person arresting and reporting him will, even if he was in collusion with him, be pardoned and rewarded with fifty pieces of gold.
(VI) 1628. An edict. (*Ibid.*, 126; *TKR*, I. v. 230.)

The peasant shall use only grass cloths and cotton cloths for their clothes, but their wives and daughters and village-heads may use pongee but nothing of better qualities.

(VII) 1637. An edict to the Intendants and Bailiffs in the eight Kwantō provinces, Kai, Shinano, and Idzu. (*To*, X, 463—464; *TKR*, I. v. 231.)

[1] Examine the five-man groups with ever increasing zeal.

[2] Examine each district separately, so that there may be no bad man. If a wicked man is discovered, not only his five-man group, but all the district, may be punished, according to the nature of the case.

[3] Do not lodge a suspicious stranger. If after lodging a stranger he is found suspicious, the case shall be reported to the five-man group and village-officials.

[4] If there be persons wishing to settle in the district or in a newly opened place, their character and origin shall be investigated, and permission be given only to trustworthy persons.

[5] If a peasant wishes to go elsewhere as servant or for a commercial transaction, he shall report his destination to the five-man group and village-officials.

[6] If there be a robber or any other wicked man, his presence shall at once be reported. Even an accomplice will be pardoned if he so reports. If the offender is concealed and is discovered through other sources of information, the five-man group and even village-officials may be punished after examination. If a revenge from an accomplice or relative is feared, the report shall be made secretly, the authorities will reward the person reporting, and strictly command the offender not to avenge himself on him.

[7] If a suspicious character is found in hiding in a temple or wood, the village-officials and peasants shall arrest and deliver him to the Intendant or Bailiff, or, if that is impossible, pursue and arrest him where he stops. It is an offence to allow him to make his escape.

[8] When a wicked man is found in a village, an alarm shall be struck, and peasants from neighboring villages shall come together and arrest him. A peasant not coming to take part in the arrest will be punished after examination. If the Intendant or Bailiff is absent, the arrested offender shall be taken to Edo. The expenses therefor will be paid by the government.

(VIII) 1642. An edict to villages. (*To*, X, 665; *TKR*, I, v, 233.)

[1] (The same as [VI].) Materials of better qualities shall not be used even for collars and sashes.

[2] Festivals and Buddhist rituals shall be simple.

[3] Palanquins shall not be used in wedding.

[4] Blanket shall not be put over a saddle.

[5] A house unsuitable to one's position shall not be built.

[6] Tobacco shall not be planted on registered land, whether in a Domain-land or in a Fief.

[7] Every village shall plant trees and build up forests.

(IX) 1642. An edict to the Intendants. (*Ibid.*)

[1] All the previous laws issued for the peasants shall be strictly enforced.

[2] From this year, the villages shall not brew *sake*. Those who are licensed to sell *sake* on the high roads may sell it to travellers, but not to peasants.

[3] Instruct the peasants to mix other cereals with rice for their meals, and to save as much rice as possible.

[4] Rice for the taxes shall not be broken or poor rice.

[5] Accounts of the expenditures of the villages shall be made by them, with the seals of the village-heads and chiefs affixed thereto. They shall be examined and returned to the villages with the seals of the Intendants' assistants affixed.

[6] Fish-mongers and collectors of contributions to temples shall not be allowed to enter the villages.

(X) 1642. An edict to villages. (*To*, X, 672.)

[1] Let no weed grow in the fields.

[2] If there is a sick orphan or solitary person, or a family with too few members to cultivate its land, the whole village shall offer help.

[3] Irrigation shall be constantly taken care of.

(XI) 1644. An edict to the Intendants. (*Ibid.*, 734.)

[1] (The same as [IX, 1].)

[2] (The same as [VIII, 7].) Plant bamboos also.

[3] Help peasants, and encourage diligence, honesty, and frugality. See that they are not remiss in their public obligations and do not incur debts.

[4] Take a good care of water-courses, repairing embankments and dredging rivers every year in due season.

[5] Secret debts and sales are forbidden.

[6] Secret cultivation is forbidden. A place intended for new cultivation shall be reported.

[7] Tax-rice shall not be sold in the districts without an official order.

[8] In the Kwantō provinces, each straw-bag of tax-rice shall contain 3 to 7 *shō* (about 1.8 bushels), including 1 *shō* of *kuchi-mai*; when the tax is commuted in money, the *kuchi-sen* shall be 3 per cent. In the Kwansei provinces, a *koku* (4,963 bushels) of tax-rice shall include 3 *shō* (i. e., 3%) of the *kuchi-mai*. There shall be no further dues.

[9] In order that the laws will be observed, an annual instruction shall be given regarding the five-man group. A special care shall be taken, as heretofore, of the exclusion of Catholics. Examine every suspicious inhabitant, not excepting ascetics and beggars.

[10] When taxes are transported in boats, the captains shall be carefully instructed not to be dishonest.

[11] The assessment of the rice-tax shall be shown annually to the peasants, and receive their seals. The record of the returns of the tax shall be certified by village-officials, and the latter shall give receipts to the tax-paying peasants. The record shall be certified by the Intendant's clerk.

[12] (The same as [IX, 5].)

(XII) 1644. An oral order to the Intendants. (*Ibid.*, 735.)

That the luxury of peasants in dwelling and clothing should be stopped; that cultivated land should not be laid waste; etc.

(XIII) 1649. An edict to villages. (*To*, X, 965ff.; *TKR*, I. v, 242ff.)

[1] Peasants shall obey the laws, respect the Bailiff or Intendant, and be toward the village-officials as toward the parents.

[2] The village-officials shall respect the Bailiff or Intendant, shall not delay the collection of the taxes, shall not break laws, and shall instruct small peasants to be good. As the peasants would not do service to the government, if the order were given them by bad village-officials, the officials shall always be upright, impartial, and considerate.

[3] Weed and hoe the fields. Plant beans and pease between wet or upland fields. Rise early, work in the field during the day, and make rope and straw-bags in the evening. Do not be slack in whatever one does. Do not buy and drink *sake* and tea. Plant bamboos and trees near the house, and use lower branches as fuel. Select good seeds in early autumn. Mend or change sickles and spade every year before the 11th day of the first month. Make manure of horses' and human refuse, ashes, and hay.

[4] Peasants are too imprudent to think of the future, and recklessly eat up rice and other grains in autumn. Always spare food as in the first three months of the year; raise barley, millet, lettuce, *daikon*, and other crops, and save rice. If one remembers a famine, he shall not waste an edible leaf or stem. Every one in the house shall eat as simply as possible at usual times, but shall have plenty to eat at the seasons of hard work.

[5] Make every effort to get good oxen and horses, for the better these animals, the more hay they tread for manure.

[6] The wife shall weave diligently, and assist the husband till night.

A wife shall be divorced who, though beautiful, neglects her husband and spends time in eating, drinking, and seeking pleasures; but if she has many children, or has done special service to the husband, she may not be divorced. An ugly wife who is economical shall not be divorced.

[7] An outlawed warrior of uncertain origin shall not be allowed to live in the village. Do not harbor robbers' accomplices or other lawless men, for their discovery would involve the village in trouble and expense.

[8] In order to be thought well of by village-officials, rich peasants, and all other people in the village, one shall be honest in every thing, and shall not entertain evil thoughts.

[9] (The same as [VI].)

[10] In household economy one shall have a little idea of the merchant, so that he would not be imposed upon when buying or selling grains for taxes.

[11] If a poor peasant has many children, some of them shall be given or be hired out.

[12] The courtyard before the peasant house shall be open toward the south and be well swept over, in order that sand would not be mixed into the grains when they are thrashed and dressed here.

[13] Consult experienced men, and raise only what is suitable to the soil.

[14] It would greatly benefit the people if barley was planted wherever possible. If one district planted barley, neighboring districts would follow the example.

[15] Apply cauterization with moxa in Spring and Autumn, so as to prevent diseases.

[16] Do not use tobacco, for it is injurious to health, wasteful of time and money, and liable to cause fires.

[17] As soon as a notice of the tax for the year is received, the peasant shall devote his energy to cultivation, so that the crop might exceed the tax. If it is evident that the crop would be insufficient, he should borrow the balance before the rate of interest rises at the end of the tax-paying season. It would be wasteful to wait borrowing a little rice till the village has used much of the harvest in taxes, and to be obliged to sell clothes and implements at unreasonably low prices or to borrow at a high rate of interest. It is wise to deliver tax-rice promptly, for it might be diminished by mice, robbery or fire, while in hoarding.

[18] Rice shall be well dried before it is hulled, or it would crack and decrease in quantity.

[19] Consider the great importance of industrious and saving habits. For example, if an idle man borrowed only two straw-bags of rice for his tax, the principal and interest would in five years be fifteen straw-bags, when he would be obliged to sell his land, his family and himself, and involve his children in misery; whereas, if he saved two rice bags each year, the principle and interest would in ten years be 117 bags.

[20] (The same as [X, 2].)

[21] Though a poor peasant may be looked down upon by his neighbors, village-officials and every one else would alter their treatment of him,

if he improved his condition by industry, and he would be raised to a higher seat. On the contrary, one would be despised if he became poor, however rich he may have been. Therefore, be industrious and well-behaving.

[22] If there is one man who has become rich through honest industry, the village, and even the whole district and neighboring districts, would be influenced by his example. Bailiffs change, but peasants find a greater advantage in not changing their homes. How great a benefit it would then be to improve one's own estate!

If there were only one lawless man in a village, the whole village might become restless and quarrelsome. It would cause annoyance and expense to the village to arrest offenders and take them to the authorities. Therefore, care should be taken to prevent such misfortune. That depends on the Village-Head, who shall always instruct the small peasants in the right path.

[23] Be in harmony with neighboring villages, and do not quarrel or dispute with other fiefs.

[24] Have a deep filial regard for the parents. If, as the first principle of filial piety, one kept himself in good health, abstained from drinking or quarreling, behaved himself properly, and respected elder brothers, pitied the younger, and all brothers lived in concord, the parents would be especially glad. Such a person would be protected by Shintō and Buddhist deities, and his harvest would be plentiful. However anxious to show filial regard to the parents, one would find it difficult, if he were poor. If poor and consequently ill, he might become ill-natured, steal, break law, and be imprisoned, and then how the parents would grieve! His family and relatives would also be thrown into grief and shame. Hence, it is wise to be thoroughly honest and industrious.

[25] When money and rice and other cereals are saved, dwelling, food, and clothes would be procured as one wishes. In this peaceful age, there is no danger that savings might be taken away by an avaricious Intendant or Bailiff, but, on the contrary, they would insure the family of their owner against famines and other emergencies, and secure the wealth of his descendants.

[26] No class of people is so secure and peaceful as the peasants, so long as they render their taxes. They shall thoroughly understand this truth, and instruct it to their children, and zealously pursue their calling.

(XIV) 1650. An edict to Intendants and Bailiffs of the eight Kwantō provinces. (*To*, X, 1052.)

No peasant shall own a fire-arm. No fire-arms shall be used, except by licensed hunters, even in the woods where firing has been permitted. A person reporting an offender against this law will be rewarded, even if he was an accomplice. Concealment will involve the five-man group and village-officials in punishment, according to the nature of the case.

(XV) 1657. An edict to the Kwantō provinces. (There had been many robbers roaming about Katsusa. *To*, XI, 204—206; *TKR*, I, v, 249.)

[1] (The same as [VII, 1].)

[2] (Similar to [VII, 6].)

[3] (The same as [VII, 5]), when staying out even over one night.

[4] (The same as [VII, 3] and [XIII, 7].) As priests, ascetics, mendicant priests, beggars, and outcasts, may lodge robbers or be their accomplices, they shall not be allowed to remain, if they are not of certain origin or if they have no acquaintances in the village.

[5] There shall be watch-houses at suitable places in villages, to keep night watch for robbers. On the appearance of one, an alarm shall be struck. (The rest the same as [VII, 8].)

[6] (The same as [VII, 7].)

[7] (The same as [XIV].)

[8] The stealing of horses is said to be frequent. An unknown character passing through the village with a horse shall be requested to tell his destination. If he appears suspicious, his passing shall be notified by the village to the next, and so on. Do not buy a horse without certain recommendations.

(XVI) 1661. An edict to all the Barons. (*To*, XI, 390.)

On this occasion of the change of the year-period, public sign-boards prohibiting Christianity shall be renewed. Judging from the occasional arrests of Christians still taking place in many places, it is surmised that any region might yet contain Christians. Continue a diligent search throughout the Fiefs. For this purpose, peasants and merchants shall be organized into five-man groups. If a Christian is discovered in a village or town from another source of information, its officials may be punished after examination.

(XVII) 1666. Instructions to all the villages [in the Domain-lands?]. (*To*, XI, 585 ff.; *TKR*, I, v, 251 ff.)

[1] (The same as [IX, 1].)

[2] All sales of persons are forbidden. Personal service may be hired for periods less than ten years.

[3] Places reserved for hawking shall be strictly guarded, and roads and bridges in them repaired.

[4] Returns of taxes should be forwarded from point to point with promptness.

[5] (The same as [XVI].)

[6] (The same as [VII, 3, 5, 7, 8].)

[7] If a villager is accidentally wounded, it shall at once be reported. If a traveller quarrelled with another, or ran away after killing him, his passing into a next village shall be reported to the latter's officials, and their certificate of the report be asked for. It is an offence to kill the murderer privately.

[8] A permanent sale of cultivated land is forbidden. The village-officials and five-man groups shall put their seals on every deed of mortgage. Any of them refusing to affix his seal will be punished. A mortgage effected without these seals is illegal, and even the village-head and five-man group will be punished therefor.

[9] It is forbidden to evict peasants and seize their lands. If there is no son to succeed to a deceased peasant's estate, the case shall be reported, and a relative, whether man or woman, shall be, with official sanction, set up as successor. It is an offence to destroy the house, absorb the land, and obliterate the estate.

[10] (The same as [X, 2].)

[11] (The same as [VIII, 1, 5].) The purple and scarlet colors on clothes are forbidden, but other colors may be used at will.

[12] (The same as [VIII, 3].)

[13] (The same as [IX, 3].)

[14] (The same as [VIII, 2].)

[15] Not a horse and not a man shall be furnished to a man provided with no ticket issued by due authorities.

[16] Disputes about water and boundaries shall be referred to the authorities, and shall not be agitated privately.

[17] Do not secretly make new coins, or use illegal coins.

[18] All kinds of gambling are forbidden.

[19] Persons who are inharmonious with their families and cause dissension in the villages shall be reported.

[20] No money, rice, or other article shall be handed to any official or person whatsoever who is unable to show a proper certificate.

[21] Any Bailiff, Intendant, or village-official doing the slightest injustice to peasants shall at once be reported.

[22] Do not conceal land, old or new, [from assessment for taxation].

[23] Land that has long lain waste or virgin soil shall, with official sanction, be cultivated

[24] (The same as [VIII, 6].)

[25] Do not cut down trees and bamboos even for urgent need without official permission.

[26] It is forbidden to sell a house recently built and build another.

[27] When an official visits a village, he shall not be entertained with anything specially bought, shall pay for everything he needs and get a receipt therefor, and shall receive no presents from the village-head or a peasant. If he annoys peasants, the case shall be reported.

[28] Fires shall be carefully prevented, and, if one takes place, it shall be speedily extinguished. Any man tardy in coming out will be examined and punished.

[29] Storehouses in charge of villages shall be protected from fires and robbery.

[30] Dikes and water-gates shall not be opened without order. If they break from neglect and cause damages, the entire village will be punished.

[31] If a peasant owing taxes runs away, his five-man group or the entire village shall pay the taxes and search for him.

[32] An article offered at a price lower than the current price shall not be bought without a guarantee. No suspicious goods shall be bought.

[33] (Similar to [IX, 2].)

(XVIII) 1668. An edict. (*To*, XI, 639.)

[1] (The same as [VIII, 5].) Hotels on high roads are exceptions to this rule.

[2] (The same as [VIII, 1].) Use plain colors other than purple and scarlet, without patterns.

[3] (The same as [IX, 3].)

[4] Neither the village-head nor the peasant shall ride in a palanquin.

[5] Wrestling, *nō* dance, puppet show, and other public amusements are strictly forbidden.

[6] (The same as [VIII, 2].) Extravagance shall be avoided at wedding or other joyous occasions.

(XIX) 1670. An order. (*To*, XI, 706.)

[1] (The same as [VIII, 5].)

[2] (The same as [XVIII, 2].)

[3] Do not sell in the village vermicelli, buckwheat cakes, *manjū*, *tōfu*, and other things the making of which wastes cereals.

[4] (The same as [IX, 2].)

[5] Cultivate, weed, and manure the fields with care.

[6] (The same as [X, 2].)

[7] There shall be no delay in paying taxes.

[8] (The same as [XVIII, 4].)

[9] No strangers who do not cultivate shall be allowed to stay in the village. If any one conceals such a person, he will be examined and punished.

[10] Nor shall a peasant who has run away from a judicial contest be concealed. The person harboring him shall be examined and punished.

[11] (The same as [XVIII, 6].)

(XX) 1670. An order. (*To*, XVI, 706—707.)

A peasant's petition shall be presented to the Intendant or Bailiff; if the Intendant fails to give justice, the peasant may bring his petition to Edo, after notifying the Intendant of his intention. If the petitioner failed to give this notice, his case, however just, would not be entertained. In the [eighteen] principal fiefs, the Baron's decisions shall be final.

(XXI) 1682. Public sign-boards. (*To*, XII, 99—100.)

(The same as Note 55, [1], above, except the part of the last article which deals with the period of personal service.) Men-servants and maid-servants shall not be hired for longer periods than ten years.

(XXII) 1682. Public sign-boards. (*Ibid.*, 100.)

(The same as Note 55, [3], above.)

(XXIII) 1682. Public sign-boards. (*Ibid.*, 100.)

[1] The sale and purchase of poisons and counterfeit drugs are forbidden under penalty. A person reporting an offence against this law, even if he was an accomplice, will be rewarded.

[2] Transactions in false coins are forbidden.

[3] Do not deal in recently published books containing uncertain matters.

[4] It is forbidden to corner a commodity, to force up its price by concert, and to raise wages likewise.

[5] All kinds of the assembling of peasants under oath will be severely punished.

(XXIV) 1711. Public sign-boards. (*To*, XIII, 162.)

(Identical with Note 55, [1], above.)

(XXV) 1711. Public sign-boards. (*Ibid.*, 162—163.)

(The same as [XXIII].)

(XXVI) 1711. Public sign-boards. (*Ibid.*, 163.)

(The same as Note 55, [3], above.)

(XXVII) 1713. Instructions to the peasants in the Domain-lands. (*Ibid.*, 319—321; *TKR*, I, v, 258 ff.; *GK*, No. 13.)

[1] Despite the minute instructions already given, villages have recently become more or less lawless and disorderly, peasants neglecting their work and indulging in luxuries. They are extravagant in dwelling, clothing and food, raise useless plants in places where grain should be raised, and, contrary to law, divide estates smaller than ten *koku* of productive power. Henceforth, the Village-Head and all the peasants shall observe all the laws previously issued, avoid all luxury, and devote all energy to agriculture.

[2] Recently, at the examination of land by the Intendant, villagers bribe his assistants, in order to secure low values attached to the land, and consequently tax-returns have decreased year by year, until in some places they are less than a half of their former amount. Nevertheless, those places do not seem to become richer, for the result is said to be due to continual corrupt practices of the lower officials. For the people in the Suzerain(公)'s Domains who till the Suzerain(公)'s land and thereby support their families and dependents in security, not to render taxes according to their means, but to squander wealth for private affairs, is very foolish conduct. The Intendants will henceforth supervise all financial matters, and their assistants have been instructed not to receive bribes, under a severe penalty. The peasants shall, therefore, devote their energies to cultivation, shall not be remiss in returning taxes, and shall report an unjust assistant to the Intendant. Village-Heads are also reported to be partial and corrupt. Henceforth, both the giver and the receiver of a bribe will be punished alike.

[3] (The same as [IX, 5], [XI, 11], with a reminder of recent laxity.)

[4] (The same as [XVII, 25], with a reminder of recent abuses.)

[5] (The same as [XI, 4], with a reminder of recent instances of farming out the work to unscrupulous contractors.)

[6] Some District-Heads have become avaricious and arrogant. Their office shall henceforth be abolished, and all village affairs shall be in charge of the Head and five-man groups of each village. Places that cannot dispense with District-Heads shall consult the Intendant.

[7] Village-officials are expected to advise peasants to adjust their differences as far as possible by mutual conciliation, but shall not suppress petitions which must be heard by the authorities.

[8] It is reported that lower officials of the storehouses of Edo detain peasants unnecessarily long when the latter come to deliver tax-rice, and that, when peasants come to Edo for presenting petitions, an Intendant's assistant compels them to stay at the house of his acquaintance at an unreasonable cost. All these cases, of whatever nature, shall be reported to the Intendant.

[9] Peasants frequently bribe officials for various purposes, as, for instance, when they fear that their village might be incorporated into a neighboring Fief, but as the affairs of the government cannot be ex-

pected to be changed by bribery, peasants should not listen to the argument of any person whatsoever seeking bribes.

[10] If the peasants concealed wrongs committed by an unjust Village-Head or assistant of the Intendant, and thereby caused their own difficulties to multiply, the persons concealing would be punished together with the offender.

(XXVIII) 1716. An edict. (*To*, XIII, 485.)

[1] (The same as [XIII, 2]. Cf. [XXI].)

[2] (The same as [VII, 3], [XIII, 7], [XV, 4].)

[3] (The same as [XVII, 3].) It has been forbidden for the mortgager, instead of the mortgagee, to pay the dues levied on the land on mortgage.

(XXIX) 1721. An edict to the Intendants. (*Ibid.*, XIII, 701.)

[1] The land that has been laid waste shall be again cultivated by the owner. If he is unable to do so, the entire village shall assist him; if the work is too difficult for the village, the Intendant shall supply the balance of the expense; and if that is still inadequate, the case shall be reported to Edo. Newly opened land shall be exempt from taxation from two to five years, after which its productive power shall be examined and the rate of the tax determined. A careful investigation shall be made as to whether there is not still some waste land capable of re-cultivation.

[2] Peasants who have served under warriors in Edo are often reported to wear swords after returning to the village. This shall be stopped, on the Village-Head's responsibility.

[3] It is forbidden to start a new trade, excepting that of the fishermen and hunters who sell their fish and game for livelihood.

[4] The building of a new Shintō temple and the making of a new Buddhist image, as well as gambling, habitual indulgence in amusement, unsuitable customs, and idleness in agriculture, are forbidden, as before.

(XXX) 1721. (*GK*, No. 15; *TKR*, I, v, 266.)

No estate shall be divided which is smaller than 10 *koku* in assessed productivity or 1 *chō* (2.45 acres) in extent. As the remainder after a division also shall not be smaller than this limit, it follows that a peasant holding an estate smaller than 20 *koku* or 2 *chō* may not divide it among children or relatives. Dependents shall be hired out in the village or take a suitable service elsewhere.

(XXXI) 1722. An edict to Intendants. (*To*, XIII, 750.)

Peasants cannot remember all the instructions which they have heard but once, and innocently commit wrongs. As there must be teachers of writing even in remote villages, these, whether priests or laymen, shall carefully instruct the people, and shall at leisure write down, for the pupils to copy or recite, the more important laws, articles of the five-man group record, and any other instructive matter.

(XXXII) 1725. Articles for the five-man group record selected by the suzerain's government. (*Ggs*, sup. 1—20; *DNR*, iv, 103ff.) (In this document, the articles are put in the form of a pledge from the people, not of a command from the officials.)

[1] The group, its examination, and its complaints. (The same as [VII, 1, 2, 6], [XVII, 20].) If one single inhabitant is left out of the group system, the village-officials will be punished.

[2] Unjust officials. (The same as [XVII, 21], [XXVII, 10].)

[3] Accounts. (The same as [IX, 5], [XI, 11, 12], [XXVII, 3].)

[4] Each one to have his seal registered.

[5] Wages for labor in public works to be properly receipted.

[6] Tax-rice. (The same as [XI, 7]. [IX, 4].)

[7] The village shall be responsible for a safe delivery of the tax-rice done in full straw-bags of 3 *to* and 7 *shō* each. (Cf. [IV, 1], [XI, 8].)

[8] Annual taxes to be assessed by the Village-Head in the presence of representative peasants.

[9] Annual taxes to be demanded and receipted by the Village-Head exactly as they were assessed.

[10] Village store-houses to be guarded by the village against all accidents, and to be opened by all the village together even under an urgent order from the authorities.

[11] No bribes to officials. Peasants to enter a complaint against an unjust official at once to the Intendant.

[12] Officials visiting the village. (The same as [XVII, 27].)

[13] Wicked men. (The same as [VII, 6, 7, 8], [XV, 2, 6].)

[14] To report on loss by robbery, on robbers, and on discovery of articles once stolen.

[15] Strangers. (The same as [VII, 3], [XV, 4], [XIX, 10].)

[16] To report on a wounded traveller and the death of a traveller. A sick traveller to be taken care of, and reported to his home.

[17] Murderers. (The same as [XVII, 7].)

[18] Not to neglect cultivation, on pain of punishment, in addition to the ordinary taxes. A really helpless peasant shall be helped in cultivation by the village.

[19] No permanent sale of land.

[20] Deeds of mortgage to bear the seals of the Village-Head and the five-man group, and the term not to exceed ten years.

[21] Succession to heirless estates. (The same as [XVII, 9].)

[22] Planting of tobacco. (The same as [VIII, 6], [XVII, 24].)

[23] The post-horse service to be prompt and honest, (and same as [XVII, 15].)

[24] Official circulars to be promptly delivered to the next village.

[25] Trees of the forests not to be cut.

[26] Trees. (The same as [XVII, 25].)

[27] The roads and bridges charged to the village to be repaired and cared for, on penalty, without waiting for an order.

[28] [29] Reservoirs. (The same as [XVII, 30].)

[30] Cultivated land not to be extended over roads and other public works, or penalty to be inflicted on the Village-Head and the five-man group.

[31] Gambling forbidden, on penalty on all parties and the Village-Head and five-man group.

[32] Fires. (The same as [XVII, 28].)

[33] Tenants to have guarantors, and the land-lord and his five-man group to be responsible for their good behavior.

[34] Not to be guarantors to servants without sub-guarantees of their own relatives.

[35] Outlaws. (The same as [XIII, 7].)

[36] Secret hawking. (The same as [XVII, 3].)

[37] Not to allow a courtesan to be in the village, on penalty on the woman, the land-lord, and his five-man group.

[38] In weaving silk and pongee, to conform to the standard width and length for each piece.

[39] Christians. (The same as [XVI].)

[40] Disorderly men. (The same as [VII, 3, 6].)

[41] Guard-houses. (The same as [XV, 5].)

[42] Fire-arms. (The same as [XIV].)

[43] Horse-stealing. (The same as [XV, 8].)

[44] Not to divide an estate smaller than 20 *koku*, if of the Village-Head, or 10 *koku*, if of the ordinary peasant.

[45] Not to mortgage land or building belonging to a temple and guaranteed by the Suzerain's vermilion seal.

[46] All men and women to be industrious in farming and to engage in suitable subsidiary occupations, on penalty of the village-officials and the five-man group.

[47] Shintō and Buddhist services to be simple.

[48] Even salaried burghers not to wear swords at a dancing show.

[49] Peasants and burghers to wear plain silk, pongee, cotton or hempen clothes, according to their means, and not to use better materials. The servants to use cotton and hempen cloths for clothes and sashes.

[50] and [51] (do not concern peasants.)

[52] Mortgage. (The same as [XXVIII, 3].)

[53] Wearing swords. (The same as [XXIX, 2].)

[54] Shintō temples and Buddhist images. (The same as [XXIX, 4].)

[55] To instruct children not to be lazy and extravagant.

[56] Ferry-boats in Kwantō to bear the official brand.

[57] Sales of persons are forbidden.

[58] To report on men falsely calling themselves officials.

[59] Not to buy or take in mortgage stolen or uncertain goods, on penalty on the five-man group and the village-officials.

[60] Gambling strictly forbidden.

[61] Cultivation of wasted land. (The same as [XXV, 1].)

[62] No new Shintō or Buddhist service to be introduced. No public show without permission, on pain of penalty.

[63] Good care of water-works and equitable distribution of water.

[64] Not to present complaints too old or with insufficient proofs.

[65] Not to force persons in wedding to give drink or to throw stones at them.

[66] To report on a foundling, and not to give it to an uncertain person and without official permission.

[67] As before, the peasant shall not mortgage land without the seal of the Village-Head, nor the latter without the seal of another village-

official. As before, a mortgage is illegal in which the mortgager, and not the mortgagee, pays the taxes on the land in question.

[68] No mortgage whose term expired before 1716 shall be considered at court after ten years after the expiration of the term. Nor shall a mortgage after ten years after the date of the contract which states that the land would be restored at any time the debt is repaid.

(XXXIII) 1737. An edict. (*To*, XIII, 1203.)

[1] A deed of mortgage which does not bear the seal of the Village-Head, a deed of mortgage by a Village-Head which does not bear the seal of another village-official, a deed of mortgage which exempts the mortgagee from the payment of taxes on the mortgaged land and charges the mortgager to pay them, these three have been declared illegal long since, and must be so stated in the five-man group record. However, there still are people who present petitions on the strength of illegal deeds. Henceforth, village-officials shall frequently read the group record to the people. Mortgages whose terms have expired since 1716 would not be considered, were disputes concerning them brought to the court. Nor would a deed of mortgage stating that the land would be restored to the owner at any time the debt was paid be entertained, if the term of the mortgage has expired. This order shall be promulgated through the Kwantō provinces, the Fiefs receiving notice thereof from the nearest Intendant.

[2] It is reported that there are still some places in the Fiefs that have not made their five-man group records. These shall be made. The order therefor shall also be transmitted to the lords from their nearest Intendants.

(XXXIV) Articles of five-man group records (of Domain-lands) not included in the summaries already given. (*GGI*). (It should not be presumed that each article appeared for the first time in the year here given. Many articles were based on old laws still in force. Few articles in the later group-records were not repetitions.)

[1] Shimotsuke, 1743. The estate of an orphan shall be taken care of by the relatives and the village, who shall make a written agreement in order to prevent misunderstanding, and shall render the taxes on the land. The orphan on reaching the majority, shall take back the estate, and be set up as a peasant (*hyaku-shō*).

[2] Shimotsuke, 1743. An especial care to be taken of rivers and embankments when there is a long rain and danger of overflow.

[3] Shimotsuke, 1743. Villagers shall not feast at the expense of the village when they congregate on common business.

[4] Mino, 1759. Peasants shall not be discourteous to warriors.

[5] Mino, 1759. If any unusual and important thing takes place in the village, or in a neighboring village, or even in a Fief near by, it shall be reported.

[6] Mikawa, 1816. No new houses shall be erected without permission.

[7] Mino, 1831. Any person especially noted for filial piety to his parents, faithfulness to his master, benevolence to the destitute, or other virtues, shall be reported.

[8] Buzen, 1836. A village-official especially faithful in doing his

duties, considerate of the interests of small peasants, and consequently regarded by them with great respect, shall be reported by peasants.

[9] Buzen, 1836. Large bells, *torii*, and stone lanterns for temples shall not be made. No Shintō or Buddhist images, whether of bronze, stone or wood, larger than three *shaku* (3 feet) in height shall be made. A permission is necessary for making more than ten images at a time, even though they are of wood and do not exceed three *shaku*.

[10] Buzen, 1836. No Buddhist temple building larger than three *ken* (6 yards) in front and no shrine or pedestal larger than one and a half *ken* (3 yards) in front, shall be erected. Elaborate beam constructions with *hiji-ki* brackets shall be avoided.

[11] Yamashiro, 1848. Any matter that would be good for the government, and any measure, however old, which troubles people, shall be reported.

[12] Kōtsuke, 1863. The peasant shall not be disrespectful to officials even in another district, and shall not be discourteous to travellers.

(Note: The Notes 60—146 will appear in a subsequent number of the Journal.)

Vocalic r, l, m, n in Semitic.—By FRANK R. BLAKE,
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IN Indo-European philology vocalic *r, l, m, n* are equally as important as those sounds which are usually designated as the vowels *par excellence*. They seem to have been among the sounds possessed by the original common Indo-European speech, and many phenomena can be explained only by referring to them. For example the varying forms of the word for "wolf," Sanskrit *vrkas*, Greek *λύκος*, Gothic *wulfs*, Lithuanian *vilkas*, Old Bulgarian *vlūkŭ*, or again of the word for "hundred," Sanskrit *śatam*, Greek *(ἐ)κατον*, Latin *centum*, Gothic *hund*, Lithuanian *szimtas*, are best explained by assuming that the original vowel of the first syllable was in the first case vocalic *l*, in the second, vocalic *n*.¹

In the Semitic languages apparently no such important role is played by these sounds. It is usually supposed that they did not form a part of the sound material of the parent Semitic speech,² but there seems to be one form at least in which the positing of a vocalic liquid is possible.

In Hebrew, Biblical Aramaic, and Assyrian we find two negative adverbs whose chief component is the consonant *l*. viz.. Hebrew *לֹא*, *לֹכֶן*; Biblical Aramaic *לֹא*, *לֹכֶן*; Assyrian *lā*, *ul*. In the first two languages the form *לֹא*, *לֹכֶן* is employed as the usual negative of declarative statements, and is regularly authtonic, while *לֹכֶן* is the negative of optative and subjunctive statements and is proclitic, as is indicated by the Maqqeph which joins it to the following word. In Assyrian *lā* is certainly the usual accented negative, while *ul* seems to be used, at least in many cases, in sentences in which some other element bears the chief stress. e. g., *edu ul êzib*, 'not one escaped', *nûru ul immarû* 'light they see not.' *ul zikaru šunu*, *ul sinnišāti*

¹ Cf. Brugmann, *Grundriss d. Vergl. Gram. der Indogerm. Sprachen*, 2^{te} Bearb. Strassburg, 1897, §§ 30, 77, 429—460, 497—532.

² Cf. Haupt, *Über die beiden Halbrocale u und i*. BA. I., p. 294.

šunu 'they are neither male nor female.' In Ethiopic, the only other language in which 'al occurs, we find it only in the quasi-verb አልቦ፣ 'albô 'there is not, has not,' and in the negative አክ፣ 'akkô, in both cases without accent. It seems therefore that these two series of forms may be ultimately of the same origin, lâ, lô being the representatives of the negative when accented, 'ul, ul being the representatives, when proclitic. The latter forms may have been developed from the authotonic lâ as follows. With loss of accent the vowel â was shortened and finally disappeared, leaving only l, probably pronounced as l̥: this vocalic l developed a prothetic vowel which was pronounced with initial glottal catch; the a vowel of Hebrew, Aramaic, and Ethiopic 'al is due to the influence of this catch; in Assyrian the Aleph was probably lost, and then the form was written with u, the vowel that seemed to render the sound best.¹

Altho liquid and nasal vowels play so unimportant a part in the parent Semitic speech, there are a number of cases in which they appear to have been developed in the individual languages. In many cases, however, in the forms in question the liquid and nasal vowels themselves do not appear, but must be assumed in the transition forms from which they are derived, e. g., Nestorian Syriac ܕܗܝܠܬܗ, dēhēlthā is developed from the original dīhlātā through the intermediate stages dīhlthā, dīlthā.

In classical Arabic, Ethiopic, and Assyrian examples of these vowels are rare. The perfect of the VII form in Arabic seems to be a case in point. انقتل inqatala being derived from ٩qatala,² a form developed on the basis of the imperfect by dropping the performative ٩a, but the treatment of ٩ + consonant does not differ from that of any combination of two consonants at the beginning of a word, as for example in VIII form اقتتل iqtatala. The varying forms of the word for 'man' مرء, امرء mar'u, mir'u, mur'u, inra'u may point to the presence of an ٩, the form being originally m̥y'u.

In Ethiopic the prepositional forms አምነ፣ አም— ĕmna, ĕm are to be derived from the original mina (cf. Arab. مِنْ before the article) through an intermediate stage ٩mna; ĕm is derived

¹ Cf. *ultu* below p. 219.

² Cf. Haupt, *Nachträge und Berichtigungen*, BA. I p. 328.

from *emma* by dropping of the final syllable after the accent had shifted to the first.

In Assyrian the writing *er* in forms like *unammer* 'make shine,' *uma'er* 'send,' instead of the regular *ir* may represent the *r* vowel in the unaccented syllable.¹ It is not impossible also that the preposition *ultu* 'from' is derived from an originally unaccented or proclitic form of *ištu* or *iltu*, through the intermediate stage *ltu*. Notice that the vowel developed out of *l* is *u* in this case as in the negative *ul* above.

In Syriac the forms of this character are more numerous.² In the Eastern dialect words in which *r, l, m, n* followed by Shewa immediately precede the final syllable e. g., *dehletha* 'fear', syncopate the Shewa and develop a vowel before the consonant, e. g., *deheltha*. Between forms like *dehletha* and *deheltha* there must have been a series of intermediate forms like *dehl̥tha* with liquid or nasal vowel.

Words which begin with *r* followed by Shewa, e. g., *reqā* 'firmament,' often lose the Shewa and take a prothetic vowel instead written with *aleph*, e. g., *arqā*; an intermediate stage *rqā* must also be assumed here.

After a word ending in a consonant the initial syllables *le, be, de* are often changed in poetry to *el, ev, ed*, e. g., *el'ith elhôn*. In the case of *l* an intermediate stage *l̥* is to be assumed e. g., *l̥'ith l̥hôn*; in the other cases the change is probably analogical.

In Hebrew, liquid and nasal vowels appear to occur in unaccented final syllables. These are found chiefly in the following classes of forms; viz.,

- a) Segholate nouns, e. g., סֵפֶר 'book,' רֶגֶל 'foot,' לֶחֶם 'bread,' שֶׁמֶן 'fat';
- b) in Segholate verbal forms, e. g., יִגַּל, יִגְלוּ, jussive Qal and Hiphil respectively of גָּלָה 'reveal';
- c) in forms of the imperfect with *ו* conversive which have recessive accent, e. g., וַיִּלָּחֶם 'and he fought.'

In the first two classes of forms the fact that the last syllable contains a liquid or nasal vowels and not short *e* followed by a consonant is indicated in the first place by the fact that such vowels are found in similar forms in other

¹ Cf. Delitzsch, *Assyr. Gram.*, Berlin, 1889, p. 89.

² Cf. Brockelmann. *Syrische Gram.*, Berlin, 1899, §§ 70—73.

languages, e. g., Eng. *taper, eagle, bosom, leaven*, the last syllables of which all contain liquid or nasal vowels in spite of the spelling: secondly by the fact that similar Hebrew forms ending in *u* or *i*, change these consonants to the vowels *û* or *î* e. g., בְּהוּ 'chaos' from *bûhu* or חָלִי 'sickness' (pausal form) from *hûli*; so בֶּהֱן (i. e. *bôhî*) 'thumb' from *bûhn*. The fact that all other Segholate forms with the exception of those containing second or third guttural radicals are likewise spelt with Seghol in the last syllable does not militate against the assumption of liquid and nasal vowels in words ending in liquids or nasals. The Massorites, of course, knew nothing of such vowels and so spelt them, with the sign for an unaccented short vowel in a closed syllable + consonant, just as we do for example in English.

In the forms of the imperfect with ו conversive like וַיִּלָּחֶם 'and he fought,' we find of course plenty of forms that do not end in liquids or nasals also written with Seghol + consonant, e. g., וַיִּכְרֹךְ, and the Seghol might in most of these cases be regarded simply as a modification of accented Çere in forms like וַיִּלָּחֶם, וַיִּכְרֹךְ. The correspondence, however, of וַיִּאָמֶר with unaccented Seghol + *r* to וַיִּאָמֶר with accented Pathah + *r*, where Seghol + *r* evidently indicate the *r* vowel, since Seghol is not the representative of unaccented Pathah, seems to indicate that we have liquid or nasal vowels also in the forms with original *i* in the final syllable.

In all these forms, then, the spelling Seghol + liquid or nasal seems to be used to indicate vocalic *r, l, m, n*. Whenever, therefore we find these combinations in an unaccented position, we are confronted with the possibility of liquid or nasal vowels. There are several series of forms besides those just discussed in which these vowels seem to be present.

In a number of nouns with prefixed מ made from stems with initial *r, l, m* we find the vowel of the prefix written Seghol, e. g.,

- מִרְכָּבָה 'chariot'
- מִרְחָב 'wide space'
- מִרְחָק 'distance'
- מִרְקָחַים 'aromatic plants'
- מִרְקָחָה 'salve'
- מִלְקָחַים 'pinchers'
- מִלְתָּחָה 'wardrobe'
- מִשְׁלָה 'ruling.'

Here the Seghol befor ר might be explained as a partial assimilation of *i* to *r*, *r* being sometimes a guttural. But ר when it acts as a guttural regularly causes complete assimilation of the preceding vowel to *a* and not partial assimilation to Seghol; besides the forms with *l* and *m* remain unexplained. It is not improbable that in all these forms we have a vocalic liquid or nasal after the prefix מ indicated as we should expect by Seghol + consouant; thus, *mykēbāh*, *mlqāhaim*, *mṣālāh*, &c. The form מְרִידָה 'thy rebelliousness,' from מֶרֶר is probably to be explained in the same way.

The possessive suffixes of the second and third person plural כֶּם, כֵּן, הֶם, הֵן as well as the independent pronouns of the second person plural אַתֶּם, אַתֵּן, all have Seghol in the last syllable followed by *m* or *n*. This Seghol is said to be derived from an *i* which belouged originally only in the feminine. e.g., Assy. *šina* 'they,' but which has been extended by analogy to the masculine forms which originally had *u*, e.g., Assy. *šunu* Arab. *hum* 'they,' Assy. *attunu*, Arab. *antum* 'ye.'¹ The presence of Seghol in these syllables instead of the regular Qere is explained by Brockelmann as due to the fact that they were originally unaccented, and that the original vocalization is preserved even after the shift of the accent to the last syllable.² Such a levelling of the *i* vowel of the feminine has certainly taken place in the independent pronoun of the third person masculine הֶם, הֵמָּה 'they,' and it may have taken place in all the masculine forms above mentioned, but it is unnecessary to assume such a process. If, as we have supposed, the final syllable was originally unaccented, we may have here simply nasal vowels, in the masculine representing a reduced form of *um*, in the feminine, of *in*.

This conception of these endings also offers a better explanation of the third person plural suffixes *ām*, *ān* as in סוּסָם, סוּסָן 'their horses.' It is difficult to see how they could be contracted from **ahim* or **ahum* and **ahin*. These would naturally yield the diphthongal forms **aim*, **aum*, **ain* or contracted **ēm*, **ôm*, **ên*. If, however, we suppose *ahim* or *ahum* and *ahin* to have been first reduced to *ahm* and *ahy*, which

¹ Cf. Brockelmann, *Grundriss d. Vergl. Gram. d. semitischen Sprachen*, Berlin, 1907, §§ 104 d δ, 105 e γ, 106 g ε.

² Cf. Brockelmann, *op. cit.*, loc. cit.

with loss of intervocalic *h* become *am*, *an* or *am*, *an*, and under the influence of the accent *ām*, *ān*, the difficulty vanishes.

In the active participle of stems tertiae ר + suffix of the second person masculine singular, such as for example יצורֶךָ 'thy creator,' the Seghol before the ר is explained as partial assimilation of *i*, which we find in such forms as איִבֶּךָ 'thy enemy,' to the guttural ר. We find the same phenomenon, however, in הִתְנַחֵךְ 'thy father-in-law' (Ex. 18, 6) and in נִתְּנָה 'giving thee' (Jer. 20, 4). Both the forms with ר and those with נ are best explained as containing liquid and nasal vowels, viz., *iōgyxā*, *hōthgyxā*, *nōthnyxā*.¹

In Exodus 33, 3 occurs the unusual form אֶכְלֶךָ 'I will consume thee' which stands for אֶכְלֶךָ, first person imperfect Piel of כָּלָה 'be completed,' with suffix of second person *singular* masculine. In the form in the text we evidently have an *l* vowel. The development from the normal form is to be conceived of as follows; 'akull'xā > 'akal'xā > 'akalxā > 'aklxā.

From what has been said it will appear that the part played by the liquid and nasal vowels in the Semitic languages is not entirely without significance. In the parent speech, it is true, they are apparently all but non-existent, but in some of its descendants, especially in Aramaic and Hebrew we find them developed in a number of cases. These cases serve to show that while these vowels in Semitic cannot compare in importance to the corresponding sounds in the Indo-European family, the possibility of their occurrence should be borne in mind in any study of exceptional forms.

¹ This form of the active participle is rare, the cases given being all those that occur with stems tertiae ר or נ; no forms occur from stems tertiae ט: from stems tertiae ל we have only נִצְלֶךָ "thy redeemer," where *l* has become *al* under the influence of the guttural ט; in the forms רִכְלֶמְךָ "thy trader" (Ez. 27, 20; 23) and תֹּאכֶלְכֶם "it shall devour you" (Is. 33, 11) in which the conditions are similar to the above, the *a* may be explained as due to the influence of the ט which acts as a guttural; in תֹּאכֶלְכֶם it may be simply analogy with the other forms of the imperfect.

The Interrelation of the Dialects of the Fourteen-Edicts of Asoka. 2: The dialect of the Gīrnār redaction.—
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BEFORE at once proceeding to give a summary of the special features of this dialect there are a few points which require our consideration.

First of all I would remind the reader that the Gīrnār redaction of the Fourteen-Edicts of Asoka is a translation from a Māgadhan original, and that the dialect of this Māgadhan original has left traces in text of the Gīrnār recension. This is a universally acknowledged fact.¹

Secondly, I wish to investigate Senart's theory of learned and historical spelling as applied to the Gīrnār redaction. Against his assumption regarding the Shāhbāzgarhi and Mansehra recensions see the excellent arguments of Johansson, *Shb.* ii, § 77 (but on the history of *s*, *ś*, *ṣ*, *rth*, *rdh*, *rt* see Michelson, *AJP.* 30, pp. 287ff., 294ff., 416ff.).

It will be noticed that in the Gīrnār version. *r* is retained after preceding stops and sibilants; but is assimilated to following stops, sibilants, and nasals; it is kept before a following *v* (see Michelson, *AJP.* 30, p. 290; cf. also *JAOS.* 30, p. 88). To Senart the forms with *r* retained are simply learned historical spellings. Franke seems to have been painfully undecided as to whether *r* in combinations with consonants in Shb., Mans., and G. was actually pronounced or was graphical only; and if pronounced as to whether it was or was not due to the influence of secondary Sanskrit: see pages 50, 54, 55, 56, 71, 72, 115, 117. And at the bottom of page 72 he gave his case away to Senart.

Whatever may be the merits of Franke's theory of secondary Sanskrit, I am convinced that no influence of it is to be seen in the inscriptions of Asoka.

¹ This seems to be a suitable place to remind the reader of the works of Konow and Senart, cited in part I, on this dialect.

There is no fluctuation in the non-writing of *r* in the Gīrnār text before immediately following nasals, sibilants, or stops. Why then do we find fluctuation in the case of stops and sibilants immediately followed by *r*, and *r* when immediately followed by *v*? If the *r* in these cases is only a learned and historical spelling, why is it that we never find a learned and historical spelling with *r* in the first cases? It should be noticed that in the 'Māgadhan' dialects *r* is assimilated to all adjacent consonants. We are therefore justified in making the deduction that *pr*, *sr*, *rv*, &c. represent the actual pronunciation in the Gīrnār dialect; and that where we have *p* (*pp* medially, written *p*), *s* (medially *ss*, written *s*), *vv* (written *v*) etc. for these respective combinations, they are 'Māgadhisms'; and that the assimilation of *r* to immediately following stops, sibilants and nasals was native to the Gīrnār dialect. Senart himself admitted the principle of 'Māgadhisms' (see *Indian Antiquary* 21, p. 174); why he never thought of applying it to these cases is unclear to me. Against his theory of learned and historical orthography may be urged the fact on the 'Māgadhan' inscriptions we never have *r* (which would become *l*) written in conjoint consonants; but why do we never find a learned or historical spelling with *r* (*l*) in them? Surely we should look for historical or learned spelling in a document written in the imperial official language, if anywhere. Again corresponding to Indic *pr* in the Gīrnār text we have *pr* 60 times, *p* 32 times. That is by actual figures *pr* is a trifle less than twice as common as *p*. But it should be noticed that *paṭi* (*paṭi* once) is found eleven times; and *paṭi* is a most undoubted 'Māgadhism'; see Michelson, *IE.* 23, p. 240. And *piye* is found once: this too may be classed as an obvious 'Māgadhism'; cf. *piye* in the 'Māgadhan' versions of the Fourteen-Edicts as well as in the various redactions of the Pillar-Edicts. Even Senart admits that the final *e* of the Gīrnār word is a 'Māgadhism'; why then should he not admit that the initial *p* for *pr* is also one? Subtracting these 12 cases of obvious 'Māgadhisms' we have 20 cases of *p* for Indic *pr* and 60 cases where *pr* is retained. That is to say that *pr* is found three times as often as *p* for Indic *pr*. Moreover it is only after the 4th edict that *p* for *pr* is frequent: in edicts 1—4 *pr* is retained 35 times, *p* for *pr* occurring but 3 times. The very obvious 'Māgadhism' *paṭi* occurs twice; the sole

remaining form with *p* for *pr* is *Piyadasi*, and the most sceptical would scarce consider this as true to the native dialect. Now if there is anything in the whole theory of 'Māgadhisms'—and this theory has been held as far as I know by all who have investigated the dialects of the Asokan inscriptions—it is clear that all cases in which *p* for Indic *pr* is apparently found in the Gīrnār redaction of the Fourteen-Edicts are 'Māgadhisms'. Now if *p* for *pr* is a 'Māgadhism' so are *k* for *kr*, *t* for *tr*, &c. In these, however, the 'Māgadhisms' are as frequent as are the true native sounds; and in some cases more frequent. Gīrnār *ithijhakhamahāmātā* is an exceptionally good example to show that *t* for *tr* is a 'Māgadhism'; the *th* for *str* is one as is also the *kh* for *ch* (really *kkh* and *cch*); see Johansson, *Shb.* 2, p. 23, and Michelson, *JAOS.* 30, p. 88. In short the true native word should be **istrījachamahāmātrā*, cf. Mansehra *istri[jh]achamahamatra* as contrasted with Kālsī *ithidhiyakhamahāmātā*. The fact that Shābhāzgarhi *ī[stri]dhi[ya]chamahamatra* also shows 'Māgadhan' influence points distinctly in the same direction; for the principle involved see Franke, Pāli and Sanskrit, p. 109, footnote 2, and compare Michelson, *AJP.* 30, p. 427; 31, p. 57. (Note the true native Gīrnār *mahāmātresu*; the 'Māgadhism' *dhammamahāmātā* occurs 3 times: cf. Dhaulī, Kālsī, Delhi-Sivalik *dhammamahāmātā*, Jaugaḍa *mahāmātehi*.) The fact that Mansehra *Amḍha-* is a 'Māgadhism' (see *IF.* 24, p. 55) is good evidence that Gīrnār *.mḍha-*, i.e. *Amḍha-*, is also one. This at once lays G. *dhuvo* open to the same suspicion, cf. Kālsī *dhuve*, Jaugaḍa *dhuvaṃ*. In the remaining cases of stops + *r* 'Māgadhisms' are in full possession except in the combination *br*, and here the 'Māgadhism' *b* is twice as frequent as native *br*. But the forms are too few and too isolated to be any criterion. Observe that 'Māgadhan' *paṭi* (*paṭi*) outnumbers native Gīrnār *pratī* (*pratī*) more than two to one; while it has completely wiped out native *pratī* in the Mansehra redaction, occurring over a dozen times; similarly 'Māgadhan' *atha-* has nearly everywhere usurped the place of native *athra-* in the Shābhāzgarhi recension (see *IF.* 23, pp. 240, 241; *AJP.* 30, p. 294ff.). So that mere numbers are not necessarily a deciding factor in every given case.

As an explanation of the fact that in the Gīrnār redaction 'Māgadhisms' for *pr*, &c. are so prevalent, it may be said that the dialect of Gīrnār agreed with the 'Māgadhan' dialect in

assimilating *r* to immediately following stops, thus causing certain forms to be identical in both dialects; for this reason it was difficult for the scribe to abstain from substituting *p* for *pr*, etc. Now in the dialect of the Shāhbāzgarhi and Mansehra recensions 'Māgadhisms' are comparatively rare (outside of *paṭi* for *prati*) in the case of stops + *r*; the reason for this is that in this dialect *r* was not assimilated to any adjacent consonants except in the combination *ārs(y)* and perhaps in the combination *rn* (see *AJP.* 30, p. 289; *JAOS.* 30, p. 89; and my essay on the etymology of Sanskrit *punya-* which is in *TAPA.* 40). As long as *r* was not assimilated to immediately following stops as in the case of the 'Māgadhan' dialect, there was comparatively little danger of a 'Māgadhism' occurring for a stop + *r*. Such 'Māgadhisms' as are found are readily to be recognized by the non-agreement of Shb. and Mans. Of course there are other means of detection; e.g. Mans. *tini* has a 'Māgadhan' *-ni*; cf. Kālsī *tini*; hence the initial *ti-* of Mansehra *tini* is open to the same suspicion, and as a matter of fact there is other evidence to show conclusively that it is a 'Māgadhism'; compare the Shāhbāzgarhi correspondent.

Let us now turn to the treatment of the Indic sibilants + an immediately following *r*. For Indic *sr* we have *sr* 5 times and no other correspondent. It is therefore certain that *sr* is the true native Gīrnār combination of sounds. It is as absurd to consider the *sr* as a purely historical and learned spelling as it is to regard the spelling *asti* (found repeatedly) for *atthi* (which would be written *athi*: it never is found in the Gīrnār redaction). If *sr* was a purely historical and learned spelling, we certainly would find *s* written at least once which is not the case.

The history of Indic *sr* goes a long way in assuring us regarding the history of Indic *śr*. Corresponding to Indic *śr* we have *sr* 11 times, *s* (really *ss* medially) 10 times. But *s* (medially really *ss*) is the sole 'Māgadhan' correspondent to Indic *śr*. What is simpler than to explain the *s* of the Gīrnār text as a 'Māgadhism'? And it should be noticed of *samaṇa-* (which occurs 6 times, either in the nom. or gen. pl., and always in compounds) there is no reason why we should not regard the lingual *n* as the sole trace of the native word precisely as in the case of Mansehra *kayana-* (for *kalana-*; the

credit of discovering this belongs to Franke), and *paṇatika* (on which see Michelson, *AJP.* 31, pp. 58, 59). Per contra note *brāmhanaśramaṇānaṃ* at G. iv. 2 with true native *br* and *sr*. And Gīrnār *guru-susūsā* betrays 'Māgadhan' influence in the vocalism: see Michelson, *AJP.* 30, p. 287; in fact the form coincides exactly with the 'Māgadhan' word *susūsā*, and for this reason it is not reliable evidence for the history of *śr* in the Gīrnār dialect. It is then not at all venturesome to include the 3 other cases of *s* for *sr* (Indic *śr*) among 'Māgadhisms'. And it should be particularly noticed that *seṭṭe* at G. iv. 10 has a 'Māgadhan' final *e* for native *aṃ* as even Senart would admit: cf. Kālsī *seṭṭhe*, Dhāuli *se[ṭṭhe]*; for this reason we may doubly suspect the initial *s* of being a 'Māgadhism'; see also *AJP.* 30, p. 293.

We have now to consider the correspondents to Indic *rv*. In the case of the correspondents to Sanskrit *sarva-* and its adverbial derivatives we have *rv* 15 times, *v* 18 times. But *sava-* (i. e. *savva-*) and *savata* (i. e. *savvatta*) are the sole correspondents to Sanskrit *sarva-* and *sarvatra* respectively in the 'Māgadhan' redactions. It is therefore highly probable that the forms with *v* in the Gīrnār version are 'Māgadhisms'. A decisive proof that this is the case is the following: Corresponding to Sanskrit *sarva-*, *sarvatra* in the Shāhbāzgarhi recension we have forms with *vr* (i. e. *rv*) as well as *v* (i. e. *vr*), but these latter are in a distinct minority; but in the Mansehra redaction we find forms with *vr* (i. e. *rv*) only. It therefore follows that the forms with *v* (i. e. *vr*) in the Shāhbāzgarhi are 'Māgadhisms': see Johansson, *Shb.* ii, § 65; Michelson, *AJP.* 30, p. 285; the statement in *JAOS.* 30, p. 82 is an error. Now if Shb. *sava-*, &c. be a 'Māgadhism' it is impossible to escape the conviction that Gīrnār *sava-*, &c. is also a 'Māgadhism'. It will be recalled that the Gīrnār dialect is most intimately related with the dialect of the Shāhbāzgarhi and Mansehra redactions: see Senart, *Indian Antiquary*, 21, p. 172; Michelson, *AJP.* 30, p. 291, *JAOS.* 30, pp. 87—89, *TAPA.* 40, p. 28. Below I have tried to show that the falling together of Indic *s*, *ś*, *ṣ* into *s* is a relatively late development in the Gīrnār dialect; and in my judgement the assimilation of *r* to following stops, sibilants, and nasals is likewise of recent origin. say shortly before the historical transmission. (This last does not apply to the assimilation of *r* in the combinations *ārṣ[y]*).

rn: these I consider old.) Then the dialects of the Shāhbāzgarhi, Mansehra, and Gīrnār recensions of Asoka's Fourteen-Edicts would be very much more intimately related than hitherto suspected.

The Gīrnār correspondents to Sanskrit *pūrva-* offer considerable difficulty. At v. 4 we have *bhūtaprurvaṃ*; obviously the first *r* should be eliminated. At iv. 5 we have *bhūtapuve*. This is wholly nonsensical. The final 'Māgadhan' *e* should be noticed. In this we have the key to the situation: 'Māgadhan' *puluve* has completely distorted the native word. At vi. 2 the text has *bhūtapurva* (*m* is graphically omitted). But the true reading is *-pruva*. Here too we have *u* preceding the *v* in imitation of the 'Māgadhan' form; but the scribe was dimly conscious that in the Gīrnār word there ought to be an *r* somewhere, and so inserted one, albeit in the wrong place. (Some may seize upon Gīrnār *-pruva* as a proof that Shb. Mans. *pruva-* is not merely graphical for *purva-* but represents the true pronunciation. But see Michelson, *AJP.* 30, pp. 289, 290, 426; 31, pp. 55—57.)

It is barely possible that Gīrnār *bhūtrā* is for **bhrātrā* by dissimilation, but it is far more likely that the initial *bh* is simply a 'Māgadhim' for *bhr* as is shown by Mansehra *bhatuna* for *bhratuna* (so the Shb. redaction) altered by 'Māgadhan' *bhātina*.

I think *pitṛā* (not *pitā*) should be read at xi. 3. The words *pitā* and *bhātā* (at ix. 5 and xi. 3 respectively) are hyper-Māgadhisms exactly as Shb. *ayi*, on which see Michelson, *IF.* 24, p. 55; and *JAOS.* 30, p. 85.

The statistics given above are made on the basis of the Gīrnār text in *EI.* 2, and the fragments in *WZKM.* 8 and *JRAS.* 1900¹. They are wholly independent from the figures published long ago by Senart.

Shāhbāzgarhi and Mansehra *pravrajitani* makes it highly probable that the *v* of Gīrnār *pavajitāni* is a 'Māgadhim' as is the initial *p* for *pr*, if indeed this latter is not the true reading. Similarly with respect to *tivo*. Now if the *mb* of *Tambapamṇī* be a 'Māgadhim'—the Shāhbāzgarhi and Man-

¹ I have not included *saveśu* of Senart's smaller fragment, because I suspect that this fragment is identical with the fragment published by Bühler. The grounds for this belief I hope to publish at any early date.

sehra redactions support this view: see Johansson, *Shb.* ii, p. 1, Michelson, *IF.* 24, p. 55—as is the *am* for *ām* (see below), then the rule should be given: *R* is not assimilated in the Gīrnār dialect to preceding adjacent consonants but is assimilated to adjacent following consonants except *v*.

The lengths to which Senart is carried by his theory of learned and historical orthography, is well illustrated by his discussion of Gīrnār *n* and *ṇ* (*Indian Antiquary*, 21, p. 171 = *Les Inscriptions*, 2, p. 430). He acutely observes that though Gīrnār possess *n* and *ṇ* in the interior of words where etymologically required, yet in case-endings we have *n* where Sanskrit shows us that *ṇ* was to be expected. He further notes that the 'Māgadhan' dialect possesses only *n* as the correspondent to Sanskrit *n* and *ṇ* alike. He therefore argues that Gīrnār *ṇ* does not represent the actual pronunciation and is only a learned and historical spelling. Now Senart can be excused from not noting the same apparent substitution of *n* for *ṇ* in case-endings in the dialect of the Shālbāzgarhi and Mansehra redactions (Johansson, *Shb.* i, p. 166, 52 of the reprint; Michelson, *JAOS.* 30, p. 87, *AJP.* 30, p. 422) for two excellent reasons, to wit, Bühler had not published his edition of the *Shb.* text nor the Mansehra version when Senart first wrote his arguments. But since the charge of a promiscuous use of *n* and *ṇ* in the Gīrnār dialect as correspondents to Indic *n*, cannot be maintained (see Michelson, *IF.* 24, pp. 53, 54), he certainly should have ascribed the use of *n* for *ṇ* in the case-endings of G. to the influence of analogy. Considering the fact that in Pāli this same analogical use of *n* for *ṇ* obtains almost exclusively, and is frequent in suffixes (see *AJP.* 31, p. 64 and my article on the etymology of Sanskrit *punya*—which is in *TAPA.* 40)—there existed ample material in the texts published at the time for him to have made this observation—his failure to do this is regrettable. In justice, however, it should be said that Senart admitted that he could not prove his case in this particular instance.

Special features of the dialect of the Gīrnār redaction of the Fourteen-Edicts.

Special features of the dialect of the Gīrnār redaction of the Fourteen-Edicts as compared with the dialects of the other redactions are:

1. *A* is retained before *m* in *majhamena*.

Strictly speaking, we can only contrast this retention with the change to *i* in the 'Māgadhan' dialect as the Shb. version differs in the wording where we otherwise would find a correspondent, and in the Mans. text there is a lacuna in the corresponding passage.

2. *A* is retained after *v* in *ucāvaca-* (see the reading of J. in ASSI).

3. *A* for *o* of the other versions in the foreign name *Am̐tiyako*.

4. The combination *ary* becomes *er* (*samacerām*).

5. The combination *ava* is retained in *bhavati*.

See Michelson, *AJP.* 30, p. 287; *JAOS.* 30, pp. 78, 88.

6. The *i* of *vacigutī* (Shb., Mans., K. *vacagutī*).

Shb., Mans., K. *vaca-* is a transfer from **vacas* to the *a*-declension. The point of departure for the transfer of *as*-stems to *a*-stems in Middle Indic languages was (as has been long known) the nom. sing. which coincided with the nom. sing. masc. of *a*-stems. The *vaci* of *vacigutī* is identical with *vaci* in Sanskrit *vacibhedāt*. In *vaci* I see a fossilized locative singular. Though in Sanskrit we have the inflection *vāk*, *vācam*, *vācā*, *vācas*, *vāci*, &c., it is clear that originally there was gradation exactly as in the case of *pāt*. This is shown by Avestan *vāxš*, *vacim*, *vaca*, *vacō*, *vacas-ca*, *vacqm*. The levelling of the gradation Skt. *vāk*, Latin *vōx*, Greek *ὄψ* is secondary; see Brugmann, *Grundriss*?, 2. 1, p. 131.

7. The first *i* in *P[i]r̥im̐desu*.

We cannot be absolutely positive that this is a peculiarity of G. as Shāhbāzgarhi *Pulī[de]ṣu*, i. e. *Pulim̐deṣu* is a 'Māgadhism', as is shown by the *L*. It is unfortunate that the Kālsī correspondent is so damaged that it is impossible to tell what the vowels of the first two syllables were with certainty. The first may have contained *u*, but the second apparently has no vowel-indicator, so that we must read *a*, a palpable blunder for *i*. To sum up, *Pul[a]deṣu* should be read *Pulideṣu*, i. e. *Pulim̐deṣu*. I have previously pointed out the fact that 'Māgadhisms' are especially frequent in the names of peoples, countries, &c. See *AJP.* 30, p. 426; *IF.* 24, p. 54, 55. On Gīrnār *Tambapaṇṇī*, see my observations above in my discussion of learned and historical orthography, and below in my discussion of the history of *ā* when followed by *m* + a consonant. To these may be added *Satiyaputo*, G. ii. 2, *Satiyaputra*, Shb. ii. 4, *Satiya[putr.]*, Mans. ii. 6; cf. Jaugada *Satiyapu*, Kālsī *Sātiyaputo*. For this reason Gīrnār *Satiyaputo* has no bearing on the origin of the word. Bühler overlooked this fact. (Note also the Māgadhan *t* for *tr* in *-puto*.)

8. The second *ũ* of *susrusā* (in compounds only) and *susrusātām*.

See *AJP.* 30, p. 287. Delhi Sivalik *sususāyā* must be kept apart from Girnār *susrusā* because DS. *bhūtānaṃ* corresponds to Girnār *bhūtānaṃ*. Thus it is patent that DS. *sususāyā* is a secondary shortening from *susūsā-*. Formerly I explained the Girnār *ũ* as being more primitive than the Skt. *ũ* of *śusrūsā*, comparing Avestan *susrusamnō* (*JAOS.* 30, p. 79). If I could formulate any phonetic law that would account satisfactorily for the *ũ* of G. *susrūsā* as being of late origin, I should greatly prefer it. It is undeniable that in a few cases the Middle Indic languages are more, or equally as, primitive as Sanskrit. But as a whole I feel that this has been rather overdone. See below in my discussion of *ā* when followed by *ṃ* + a consonant.

9. Vocalic *r* becomes *a* for the most part. but dental stops are not thereby converted to linguals, e. g., *kata-*.

See *AJP.* 30, p. 421. There is not the slightest evidence that *r* ever becomes *i* in our dialect. See *Classical Philology*, 5, pp. 219, 220.

10. Vocalic *r* becomes *a* in *mago* (Shb. *mrugo*, K., J., Dh. *mige*).

On Mans. *mruige* and *mrige*, see *AJP.* 30, p. 424.

11. Long vocalic *r* becomes *a* in *daḍha-*.

The 'Māgadhan' correspondent is *diḍha-*. On Mans. *driḍhra-*, see *AJP.* 31, pp. 55, 56. Shb. *diḍha-* is a 'Māgadhism.'

12. The *e* of *lekhāpitā*.

13. Long *ā* is not shortened before medial *ṃ*, e. g., *apabhāmdatā*.

The *ṃ* is graphically omitted in *niyātu*; this is a third person plural as is shown by Kālsī *nikhamamtu*, Dhauli and Jaugada *nikhamāvū*. The correspondents of the Shāhbāzgarhi and Mansera redactions are not decisive. The *ṃ* is likewise omitted in *Pāḍā* (Shb. *Paṃḍa* at xiii. 9) and *aparātā* (Shb. *aparamta*, K. *apalamtā*) exactly as in *dharmasambadho* (Shb. [*dhra*] *masambadho*), *ki* at ix. 9 and xii. 2 for *kiṃ* elsewhere in this version; *karoto* (for *karomto*); and possibly in *karote* at ix. 3 if not purely an error induced by *karote* at ix. 1 and 2 where a singular is in place. At v. 5 Bühler reads *Kambo*, i. e. *Kamboja-*. As a matter of fact the correct reading is *Kāambo*. [*Kambo* in Bühler's fragment of the thirteenth edict (on Senart's smaller fragment, see above) is a 'Māgadhism', if the correct reading.] At v. 5 Bühler reads *Gaṃdhārānaṃ*. Yet it is not impossible that the correct reading is *Gām-* as there is a large crack in the stone at this point which prevents us

from being positive as to which reading is correct. If the true reading be *Gaṃ*-, then it is a 'Māgadhism' as is the case with *Tambapamṇi* (Kāśī *Tambapamni*; see my discussion of learned and historic orthography above). As I pointed out above in my discussion of *P[i]rimidesu*, 'Māgadhisms' are common in names of countries, peoples, &c. That *ni-yātu* is Sanskrit *yāntu* and not Sanskrit *yantu* is clear from Sāmāth *yāvu*. According to the St. Petersburg lexicons Sanskrit *Pāṇḍa*- is merely an error for *Pāṇḍya*-. If so it must be a very old one as evinced by the Asokan inscriptions. It is not possible that in some dialects postconsonantal *dy* became *ḍ* phonetically? Then Mans. *Pa[ṇ]ḍiya*, Shb., Mans. *Paṇḍiya* would be 'Māgadhisms', and Skt. *Pāṇḍa*- a borrowing from some Middle Indic vernacular. Formerly (*JAOS.* 30, p. 79) I held that as *ā*, and this only, corresponds to Skt. *ān* = original *ṇi* (*atikātaṃ*, iv. 1, v. 3, viii. 1, *atīkrātaṃ*, vi. 1 = Skt. *atīkrāntaṃ*; *chāti[ṇ]*, xiii. 11 = Skt. *kṣānti*-), the Gīrnār *ā* was more primitive in this respect than Sanskrit as it is admitted that the *n* of Skt. *krānta*-, *dānta*-, &c. is analogical in origin. I thought that as in Gīrnār *-āṇ*- never occurs in these cases, it was impossible to regard the omission of *ṇ* as merely graphical. Prof. Bloomfield at the meeting of the AOS. adversely criticised this point, and after a subsequent discussion with Dr. Sturtevant, I am ready to admit that the forms cited are too few to form a sound basis for the proposed theory inasmuch as *ṇ* is often graphically omitted in other cases. At the same time it is well to mention the theory in the hopes that new evidence will turn up to either establish or completely disprove it. A single form with a medial *ṇ* would do the latter. Shb. and Mans. *atīkrataṃ* are merely graphical for *atīkraṇtaṃ* (which occurs in both).—I likewise stated in *JAOS.* l. c., that this theory proved that G. was not a linear descendant from Sanskrit. If this theory is wrong, that would not invalidate that claim. For the fact all the Asokan dialects point to a loc. sing. **-smi* (G. *tamhi*; &c.) [not **-smiṇ* (Skt. *tasmiṇ*)] shows that not a single Asokan dialect is such a descendant. A further proof of this as applied to the Gīrnār dialect is *iḍha* (Skt. *iha*).

14. Long vowels are not shortened before two consonants (*nāsti*, *brāhmaṇa*-, *mahāmātresu*, *Rāṣṭika*-, *parākramāmi*, *parākramena* [not *pārākramena* as Bühler reads] *ātpa*-, [Skt. *ātma*-], *bhātrā*).

It is clear that *bamhaṇa*- at ix. 5 is merely a blunder for *bāmhaṇa*- which is found in this version: note the blunders *dānaṃ*, *etārisaṃ*, *nātikena* in the same edict. Similarly *bramhaṇa*- [not *brahmaṇa*- as Bühler transcribes] in the fourth edict is merely a blunder. See *IF.* 24, pp. 53, 54; *AJP.* 30, p. 295. It should be noted that *rāñā*-, *rāño* can be in themselves

either *rāñā*, *rāño* or *rāñña*, *rāñño* respectively. Pāli and Prākṛit show that they are to be read *rāññā*, *rāñño*. It will be remembered that on inscriptions *ñ* can stand for *ññ*, *m* for *mm* exactly as *s* for *ss*. Compare Bühler, *Epigraphia Indica*, ii, p. 91. *Supāthāya* at i. 9 is graphical for *supāthhāya*. This is shown by Dhauli *sūpathāy(e)*. Kālsī *sūpathāy[e]*, Jaugaḍa (*sū*)*pathāye*. As a long vowel is regularly shortened in these redactions before two consonants these forms are merely graphical for *supatthāye*. Hence Gīrnār *sūpāthāya* is for *sūpāthhāya* (Skt. *sūpārthāya*). Just so with *mahāthāvahā* at x. 1 cf. Kālsī *mahathāvā* (read *mahathāvahā*). Pāli is likewise confirmatory for these two cases. Similarly *asamātaṃ* (Skt. *asamāptam*; Kālsī and Dhauli *asamati*). *Parākamate* is a 'Mādhism' for **parākramate*. Similarly *parākamena* at x. 4 if this is the correct reading which at least is not certain. If *tadātpano* stands for **tadātvana-* we have another example. If it is a blunder for **tadātpāya*, we still have a case. It should be mentioned that *ānapayāmi*, *āñapitaṃ* do not belong here: they come from the simplex *ñ-*, compounded with *ā-*. This is shown by Pāli and 'Māgadhan' versions of the Fourteen-Edicts. There remain some unexplained apparent exception. Note that we have *kiti* at x. 1 but at x. 2 *kiti*. It is quite likely that the vocalism of the 'Māgadhan' original of which the Gīrnār version is a translation, is responsible for this: cf. Jaugaḍa *kī(ṣ)ī*, Dhauli (*kī*)*ṣī* and (*kī*)*ṣī*, i. e. *kīṣī* (local peculiarity for **kīṣīm*, Skt. *kīrtin*). For 'Māgadhan' influence in the vocalism of words in the Gīrnār redaction, see Michelson, *AJP.* 30 p. 287, *JAOS.* 30, p. 90. A case in point is *dasayitpā* for **daseptā*; cf. Shb. *draṣayitu* for native (and Mans.) *draṣeti*. 'Māgadhan' *dasayitu* has been the disturbing factor in both cases: see *AJP.* 31, p. 60. At ix. 9 we have *svagāradhi*. This certainly corresponds to Skt. *svargārāddhi-*, cf. the preceding *svagaṃ ārādhetu* (Skt. *svargam ārādhayitum*). *svagaṃ ārādhayantu*, vi. 12, and the correspondents of the other versions. But it should be noted that the ninth edict has many blunders of *ā* for *ā* (see above). So *svagāradhi* might be one for **svagārāddhi* (i. e. *svagārāddhi*). But we have *āradho hoti* at xi. 4. Here we can ascribe the *a* with confidence to 'Māgadhan' influence (Kālsī *āladhe*), for the following *hoti* is a 'Māgadhim': see *AJP.* 30, p. 287; *JAOS.* 30, p. 78; and above. Hence it would be plausible to attribute *svagāradhi* to such influence. But the reading of the Dhauli text (which alone has a correspondent) is uncertain. In either case, it is not against the law proposed. The correspondents to Skt. *pūrva-* cannot be taken into consideration, for *bhūtapuve* and *bhūtapruva* have both 'Māgadhan' *u*: see my discussion of learned and historical orthography. *Bhūtaprurvaṃ* has at least one blunder as it is; so *u* for *ū* might be another. See Bühler, *EI* 2, p. 453; Michelson, *AJP.* 30, p. 184. *Dighāya* at x. 1 is very difficult.

The Sanskrit correspondent is *dirghāya*. The 'Māgadhan' versions have a different word in the corresponding passage, and both the Shāhbāzgarhi and Mansehra versions have 'Māgadhisms' in the corresponding passages. Of course the fact that the 'Māgadhan' versions have a different word does not preclude the possibility of the particular 'Māgadhan' text of which G. is a translation from having had a form precisely the same or very similar to the Girnār form. It will be remembered that frequently the versions do not agree in the wording. In this way *dighāya* might be due to 'Māgadhan' influence. It may be mentioned that once *dighāya* was read *dirghāya*, but I am convinced from the plate in E.I. that this is not the true reading.—The most obstinate of all to explain is *anusastī* (this or other cases of the same word occurs 4 times, including the occurrence in a fragment of the thirteenth edict, and always in the compound *dhammānusastī*). *Nāsti* (Skt. *nāsti*) occurs half a dozen times, there being no other correspondent to Skt. *nāsti*. It would therefore seem impossible that *anusastī* can phonetically stand for Skt. *anuśāsti*-. At the same time I hardly dare ascribe the *a* to 'Māgadhan' influence because of the frequency of the word. Perhaps this timidity is wrong as *paṭi* is frequent in G. and outnumbers native *prati* two to one. Also *thaira*- (or other forms of this) occurs three times, and the initial *th* looks like a 'Māgadhisms', though another explanation (see below) is possible. Finally it should perhaps be queried if G. *anusastī* is not Skt. *anuśasti*-, not *anuśāsti*-.

15. The diphthong *ai* in *thaira*- and *traidasa*-.

The origin of this diphthong is not wholly clear. Without question the *e* of Dhauli *ted(a)sa*, Kālsī *t[e]dasa*, Prākṛit *terasa*, *teraha* is to be associated with the *ai* of *traidasa*. According to Pischel, *Grammatik*, § 119, the prototype was **trayadaśa*, the *e* then being a result of contraction. The trouble with this explanation is that *-aya-* in G., Dh., and J. otherwise is uncontracted (cf. *JAOS.* 30, p. 91). Franke, *PuSkt.*, p. 104 rejects Pischel's explanation, and says the *e* is for *i*. This leaves Girnār *traidasa* hanging in the air. Johansson, *Shb.* i, p. 136 (22 of the reprint) suggests that the Middle Indic dialects in this case are very archaic and that Skt. *trayodaśa* is analogical. This last no doubt is the case, but I hardly like to start from this point of view. Phonetically there is nothing for or against his proposition as *-ayē-* is unique at present as far as the phonetics are concerned. (J's prototype is **trayadaśa* which would become **trayēdaśa*.) Similarly regarding *thaira*-. Pāli and Prākṛit *thera*- postulate some such intermediary form as the Girnār word (Pischel, l. c., § 166). But here again, the loss of *v* between *a* and *i*, and the subsequent contraction of these vowels is unique.—A further note on *thaira*-. The word apparently contradicts the law that *sth* becomes *st* in our

dialect (*gharastāni*). The 'Māgadhan' versions have an entirely different word as correspondents. Still that does not preclude the possibility of a 'Māgadhan' **thela-* having distorted an original **staira-*. Cf. my remarks on *dighāya* above. It is very bold to assume descent from a prototype that bore the same relation to Skt. *sthavira-* as Gr. *τελω* to *στελω*, though I still believe in spite of Pischel that Pkt. *chepa-* is similar a case as compared with Skt. *śepa-* (IE. *sk̂-* and *k̂-*). It might be a late product. Cases like *-as sth-* phonetically became *-asth-*, and this was wrongly divided *-as th-*. Hence a form **thavira-* beside *sthavira-*. But this is purely speculative.

16. The combinations *viy* and *vy* fall together in *vy* (kept apart as such in the Kālsi dialect): *vyasanam*, *vyamjanato*, gerundives in *-tavya-*, *divyāni*.

Bühler wholly inconsistently transcribes the same symbol initially by *vy* but medially by *yv*. Why he made any distinction is not clear to me. If we transcribe *divyāni*, we must transcribe **yvasanam*, *yvāpatā*, &c. But such a combination would be unpronounceable. His appeal to Pāli *yha* from *hya* is wholly irrelevant as we do not have *yv* from *vy* in Pāli. As I am ignorant of the modern Indo-Aryan vernaculars, I cannot criticise his argument from this source.

17. The combination *duv* becomes *dv* (*dvo*, Vedic *duvāu*).
 18. The combination *dv* becomes *db* (*dbādasa*).
 19. The combinations *suv*, *sv* (kept apart as such in the 'Māgadhan' dialects) fall together in *sv* (*svāmikena*, *svayam*).
 20. The combinations *tv* and *tm* become *tp*; *catpāro*, gerunds in *-tpā*, *ātpa-* (Skt. *ātma-*).

There is considerable dispute as to the exact value of the ligature which Bühler transcribes by *tp*. There is no question but that the true order of the letters is *pt*, and some (Pischel and Franke) maintain that this represents the actual pronunciation. But it is universally admitted that the actual spelling is no criterion; and some (Burnouf, Ascoli, Bühler [*EI.* 2, p. 210], Johansson) have tried to show that the real pronunciation was *tp*. The linguistic arguments that have thus far been adduced, in my opinion, have a negative value, some tending to show that the pronunciation was *pt*, some *tp*. And it should be especially noted that no arguments from the dialect itself have been brought forward but only from allied languages. The following linguistic argument, especially when taken in conjunction with Bühler's palæographical one, seems to me conclusive proof that *tp* was the pronunciation: *Dbādasa* corresponds to Sanskrit *dvādaśa*; and there is no question but

that *db* represents the correct order of the letters. Now if Indic *dv* becomes *db*, then Indic *tv* surely should become *tp*. Hence gerunds in *-tpā* (Skt. *-trā*) are to be read as such. This settles the reading *ātpa-* (Skt. *ātma-*) without further arguments. The fact the Singhalese gerunds in *-pata* point to *-ptā* (Skt. *-trā*), does not show that the Gīrnār gerunds in *-tpā* are really *-ptā*, for a stage *-tpā* is presupposed between *-ptā* and *-tvā*; and the metathesis of *tp* to *pt* can be specifically Singhalese. Oertel recently (*Lectures*, pp. 221, 222) has tried to defend the view that we really have *pt* and not *tp*, admitting a stage *tp* between *pt* and *tv*, but saying that *pt* was substituted for the unusual combination *tp* because *pt* was a frequent combination. Inasmuch as the *p* in the combination of original *pt* was assimilated in this (e. g. *asamātaṃ*, Skt. *asamāptam*) as well as other Asokan dialects and in Pāli and Prakrit, I confess that I am not convinced by this line of reasoning. Senart, admitting that the ligature should be transcribed *tp*, in accordance with his theory of learned and historical spelling on the inscriptions of Asoka—which seems to me to be quite untenable—contends that the actual pronunciation was *pp*.

21. The combination *sm* becomes *mh*: *tamhi*, **tasmi*, cf. Skt. *tasmin*.
22. The combination *hm* becomes *nh*: *brāmhāṇa-* (for the other variants of this word see above).
23. *R* is assimilated to all adjacent following consonants except *v*; it is retained after preceding adjacent consonants, and before *v* when that follows immediately: *athāya*, *dhamma-*, *Priyadasi*, *priyo*, *sramana-*, *sarvatra*.
The apparent exceptions are 'Māgadhisms'. See my discussion of learned and historical orthography above.
24. The combination *-arṣ-* and *-arṣy-* become *-ās-*: *vāsa-*, Skt. *varṣa-*, *kāsaṃti*, **karṣyanti*, cf. Skt. *karīṣyanti*.

See Michelson, *IF*. 24, pp. 53, 54; *AJP*. 30, p. 289; *JAOS*. 30, p. 89. I give this as a characteristic of G. because the final product is such, whether or not the phenomenon is to be associated with a similar one in Shb. and Mans. (as I think likely). The chronology I formerly assumed is a trifle inexact; we need only assume that in Gīrnār the *r* was assimilated and the gemination simplified with compensatory lengthening before *rś* reached a stage *rṣ*; we cannot know whether in G. the sibilant in the first case had already become a dental. Note 'Māgadhan' *vasa-*, i. e. *vassa-* = Gīrnār *vāsa-*, Skt. *varṣa-*.

25. Original *rs* converts a following intervocalic dental *n* to a lingual *ṇ*: *vimāna-dasaṇā*.

See Michelson, *IF.* 24. p. 53.

26. Aryan *št* (Skt. *ṣṭ*, Av. *št*) and Aryan *sth* (Skt. *ṣṭh*, Av. *št*) fall together in *st*: *tisteya*, *seste* (a 'Māgadhism' for *srestam*).

See Michelson, *AJP.* 30, p. 291; *JAOS.* 30, p. 89. It is likely that this is to be brought into rapport with the change of Aryan *št* and *sth* to *st* in the dialect of Shālbāzgarhi and Mansehra. I list the phenomenon here because the final result is different in the two dialects.

27. An original palatal sibilant converts *st* beginning the next syllable to *ṣṭ* (*dhammānusasṭi*).

See the references cited under 26. I have much less hesitation than formerly in connecting this process with the law in Shb. and Mans. that original *ś* converts a following intervocalic *s* to *ś*. For convenience I repeat the law I gave in *AJP.*: A palatal sibilant converts a following dental sibilant to a palatal one in the dialects of G., Shb., Mans., the combination *št* subsequently becoming *ṣṭ* exactly as pre-Aryan *št* became Aryan *št*. Then this secondary *ṣṭ* had the same history in the separate dialects as Aryan *ṣṭ(h)*, i. e., G. *ṣṭ*, Shb., Mans. *st*. Secondary intervocalic *ś* had the same history as original intervocalic *ś*, namely, G. *s*, Shb., Mans. *ś*. In support of this combination I would urge that the special points of contact between these dialects are extremely numerous. See below, and *JAOS.* 30, pp. 87—89.

29. The combination *hv* becomes *h* and the preceding vowel is lengthened: *prajūhitavyaṇ*.

The gerundive is based on the present stem as is common in Middle Indic languages. The stem *juhv-* was abstracted from *juhvati*, whence *jūh*. If the long vowel *ū* could be otherwise accounted for, I should prefer to take *jūh-* as being the abstraction from the present stem. [For the phonology, see Pischel, §§ 65, 332; Konow in *Ark. Afh. til S. Bugge*.]

30. The combination *-ṇiy-*, *-ṇy-* become *-ṇṇ-* (written *-ṇṇi-*): *ānaṇṇaṇ* (Skt. *āṇṇyam*), *hiraṇṇa-* (Skt. *hiraṇya-*).

31. The retention of *dh* in *idha* (Skt. *iha*).

32. The *t* of *Ketala-* in *Ketalaputo*.

33. The *g* of *Magā* (Kālsī *Makā*, Shb. *Maka*, Mans. [*Maka*]).

34. The sandhi of *iti*, namely, the first *i* is not lost after immediately preceding vowels or nasals except in the com-

bination *kiṃ ti:paṭivedetha iti*, vi. 5; *tisteya iti*, vi. 13; *sādha* (blunder for *sādhu*) *iti*, ix. 8; *ārādhetu* (-ṃ graphically omitted) *iti*, vi. 9; *ḍipayema iti*, xii. 6; *danam* (blunder for *dānam*) *iti*, ix. 7 but always *kiṃ ti* (except once where the ṃ of *kiṃ* is graphically omitted).

35. *Etayam* for *eta ayam*.

According to Bühler this is for *eta iyaṃ*. As *iyaṃ* in this text is a 'Māgadhism', I prefer the above.

36. The double treatment of final *ām* becoming *ām* and *aṃ*.

The law governing this double correspondence is not clear. I give two explanations for what they are worth without definitely committing myself to either. To judge from the accusative singulars *viḥārayātām*, and *samacerāṇi* as compared with the genitive plurals *devānam* (found repeatedly), *mitasaṃstutānā-tīnam*, *bāmhaṇasamaṇānam*, (three times), *prāṇānam* (twice), *brāmhaṇasramaṇānam*, *bramhaṇasamaṇānam*, *dharmayutānam*, *gurūnam*, *thairānam*, *mitasastutānātikānam*, *manusānam*, *pasu-manusānam*, *bhūtānam*, the law would seem to be: final *ām* with acute syllabic accent becomes *ām*; final *ām* with circumflex syllabic accent becomes *aṃ*. The final ṃ is graphically omitted in *pūjā*. xii. 8. xii. 2; *dharmasusrusā*, x. 2 as in *vadhi*, iv. 11, *phala*. xii. 9, *ārādhetu*, ix. 9, *kiti*, x. 1. *kiti*, x. 2, *bhūtapruva* (so!) vi. 2, *sava*, vi. 2. *ki ti* (= *kiṃ ti*), xii. 2, *susera*, xii. 7. It is also probable that *mahāthāvakā* at x. 1 is for *-vakām* as is shown by Mansehra *mahathravaham*. Dhauli (-*ham*): yet this is not certain as it might be a nom. pl. neutre like *vinānadasaṇā*, *hastidasaṇā*.—We then should infer that the middle ending *-tām* had the acute syllabic accent (*susratām*. x. 2; *anuvidhiyatām*, x. 2) and that the locative sing. of *ā*-stems, *-āyām*, had the circumflex syllabic accent on the ultima (*gaṇanāyām*, iii. 6; *parisāyām*, vi. 7). The objection to this explanation is that it is highly speculative, even if we have Vedic genitives in *-aam* to back it up. On another occasion I had a chance to point how groundless a 'law' was in the Middle Indic dialects which was based on a differentiation by acute and circumflex syllabic accent (*AJP.* 30, 296). And I have shown in my *Notes on the Pillar-Edicts of Asoka* (*IF.* 23) that corresponding to Skt. *-vyā-* and *-vyā-* alike we have Pāli *-bb-*, Prākṛit *-vv-*. In *AJP.* 30, p. 292 I have disproved Johansson's explanation of Shb. *etisa* by accentual conditions. And I have shown in *JAOS.* 30, p. 85 how very improbable is his theory that the position of the accent determines the treatment of final *-am* in Shb. So that on general principles I am averse to any explanation involving the accent. Yet I may add that the law that in the dialects of the Radhia, Mathia, Rām-pūrvā redactions of the Pillar-Edicts final *ā* (whether original

or secondary) is shortened to *ă*, except in the case of accented monosyllables, and before postpositives and enclitics, is due to accentual conditions: *dayă* necessarily presupposes the accentuation *dáyă* as opposed to Skt. *dayá*, similarly *kată* the accentuation *kátă* as opposed to Skt. *kṛtás*. So there might be something in this theory; but, I repeat, I am very dubious on the point. The alternative explanation I give, and the one in which I have greater confidence is this: final *ām* when preceded by a syllable that contains a long vowel, becomes *am*; otherwise it becomes *āṃ*. This would account nicely for the difference between *devānam*, &c. and *dhammasusrusā* (i. e. *-ām*). But this would not answer at all for *viḥārayātām*, *sama-cerām*, and *pūjā* (i. e. *pūjām*). We would have to assume extensive levelling, and rather more than our evidence warrants. Moreover with this explanation we presuppose the accentuation *devānam*. So we are again involved in an accentual condition. Still I should very much prefer to assume that the accent was that of Classical Sanskrit rather than a relic of Vedic accentuation, if for no other reason than that in certain Asokan dialects (see above) the accentual system was identical with or similar to the former. To sum up, the evidence at hand will not permit us to formulate a law governing the correspondence. —Senart at first held that *-aṃ* and *-ā* were interchangeable; later, without giving up the possibility of this, considered that final *ṃ* had been lost after *-ā*. Konow in his treatise on the dialect of the Gīrnār redaction clung tenaciously to the theory that *-ā* and *-aṃ* were interchangeable. He said that *pūjā* was for *pūjaṃ*, but accepted *riḥārayātām*; but nowhere is any explanation given to account for the double form of the accusative in the same dialect. His appeal to the Pkt. grammarian Caṇḍa is no explanation. I hope now to definitely disprove the mistaken notion that *-aṃ* and *-ā* are interchangeable in the Gīrnār dialect. I have shown *AJP.* 30, p. 183 ff. that *sāmīpaṃ*, a supposed nom. pl. masc. of an *a*-stem is in reality a nom. sing. neutre of an *a*-stem. In the same paper I have made it clear that if the reading *bhūtapurvaṃ* be retained, or rather emended to *bhūtapurcaṃ*, so far from being a nom. pl. at all, it is the equivalent of Pāli *bhūtapubbem*, an adverb. Senart once held that *atikātaṃ* was for **atikamtaṃ*, later gave this up. The fact that **atikamtaṃ* is never written is a guarantee that this was not intended by the [spelling *atikātaṃ* (see my discussion on the history of long *ā* before medial *ṃ*). Similarly *chāti[ṃ]* is not for **chamtiṃ*. Long ago Bühler made it clear that *nicā* does not correspond to Skt. *nītyam*. The long *i* and the *c* of Dhaulī and Jangāḍa *nīce* and the *c* of Kālsī *nice* (i. e. *nīce*) show this. Vincent Smith's reversion to the older view is regrettable. Phonetically we would have K., Dh., J. **nītiyaṃ* corresponding to Skt. *nītyam*. I admit that the short *i* of G. *nicā* is hard to explain. Probably the last word has not yet

been said on the group of words. But if the Gīrnār word were the equivalent of Skt. *nityam*, it would be the sole case in which *-ā* and *-am* apparently interchange. For some positive arguments against this interchange we have the following: the acc. sing. masc. of *a*-stems is always *-am*, never *-ā*; the nom. acc. neutre of *a*-stems is always *-am* (barring 'Māgadhisms'), never *-ā*; the nom. pl. of *a*-stems is *-ā*, never *-am*; the genitive pl. always ends in *-am*, never *-ā*. Now if *-ā* and *-am* were interchangeable we surely would have some confusion in these categories. And such is not the case.

37. The final vowels of prefixes are occasionally lengthened in compounds: *asampratīpatī*, *abhīramakāni*.

38. The dat. sing. of *a*-stems ends in *-āya*: *athāya*, *paribhogāya*, *kammāya*, *tāya*, *etāya*, *imāya*.

39. The dative sing. *athā*.

According to Senart, Konow, and Pischel this is merely a blunder for *athāya*. I see no reason why it may not be a case of haplogy as the word occurs in the expression *etāya athā*. Bühler, Johansson, and Franke have defended the word on other grounds. See Bühler, *ZDMG.* 46, p. 62; 48, p. 56; Johansson, *Shb.* ii. p. 53, footnote 1, *BB.* 20, p. 85 ff. (especially p. 92); Franke, *Pāli and Sanskrit*, pp. 122, 152; Pischel, *VS.* i, 44, 61; Bartholomae, *BB.* 15, p. 221 ff., *GrIrPhil.* 1, p. 122; Aufrecht, *Festgruss an Böhrling*, p. 1 ff.; Brugmann, *Grundriss*². 2. 2. 1 § 159 Anm., and the literature cited in these references.

40. The 'oblique' cases of the *ā*-stems ends in *-āya*: *vividhāya* *pūjāya*, xii. 1; *mādhūratāya*, xiv. 4 (inst.); *athasam̐tīraṇāya*, vi. 7 (loc.).

This *-āya* is identical with Pāli *-āya*. The explanation of the form is as follows: *-āya* as a dative sing. was taken over analogically from the *ā*-stems just as in certain other Middle Indic dialects the *ā*-stems have analogically taken over *-āye* from *ā*-stems (see *JAOS.* 30, p. 92). After the syncretism of the dative and genitive sing., *-āya* was used in place of older **-āyā* from **-āyās*. Then *-āya* levelled the inst. sing., and eventually came to be used as a locative exactly as in certain Middle Indic dialects *-āye*, properly a dat., came to be used as an inst. and loc. sing. The inst. sing. and gen. sing. of *i*-stems, **-iyā* and **-iyās* respectively, phonetically fell together in *-iyā*; and this no doubt accounts for the levelling in the case of the inst. sing. Moreover *-iyā* was used as a loc. sing.; so the spread of *-āya* to the locative is also readily accounted for.—It would be possible to account for the loc. sing. otherwise, and consider it an archaism as opposed to Skt. *-āyām* which is obscure in termination. For *-āya* could phonetically

be combined with Gāthā-Avesta *-āyā*, Young-Avesta *-aya*. Old Persian *-āyā* from Aryan **-āya*. It will be remembered that neither the Avestan nor Old Persian are to be considered in determining the vowel-quantity of the final syllable. For original *-ā* and *-ā* graphically appear the same, namely, GAv. *-ā*, YAv. *-a*, OP. *-ā*. It may be added that it is universally admitted that the vocalism of the first syllable in Avestan has been affected by the vocalism of the inst. sing. The fact that Gīrnār, Pāli *tamhi*; &c. point distinctly to a prototype **tasmī*. not **tasmin* (see Johansson, *Shb.* ii, § 88) can be used as an argument in favor of this explanation. For the ending **-smi* is to be found in Avestan *aētahmī*, *ahmī*, *kahmī* (per contra Skt. *etasmin*, *asmīn*, *kasmin*). See Brugmann, *Grundriss*², 2. 2. 1, § 360. Attractive as this is, I think it can scarcely be maintained in view of the comparatively simple explanation offered above.—There is no necessity of assuming with Johansson and Torp a law that final *ā* is shortened if the preceding syllable contains a long vowel to account for *-āya* as a gen. sing. Moreover as the preceding syllable in the case of *tamhā* (Skt. *tasmāt*), *pacchā* (Skt. *pāścāt*) contains a vowel long by position, we would expect the final *ā* to be shortened. Only assuming the most complicated chronology can the law be maintained, and allowance made for tremendous levelling. And there is no trouble in the explanation I have given to explain *-āya* as a genitive. Pāli *assa*, Gīrnār *asa* i. e. *assa* is no support for the proposed law of shortening. It does not correspond to Vedic *asat* (subj.) as Kern suggested. But it would be possible to consider it as coming from **asyat*, a cross between *asat* and *syāt*. A good parallel is Dhaulī and Jaugaḍa *nīkhamāvrū* (see Johansson, *Shb.* ii, p. 89, footnote 3). Or it might be due to such forms as G. *tisteya* (**tisttheyat*, created by analogy; *tisttheyam* is to **tisttheyāt* as *atiṣṭham* is to *atiṣṭhat*). Henry's explanation of *-āya* (see his *Précis*) is improbable.—Formerly I thought that *-āya* on the Pillar-Edicts of Asoka was to be connected with Pāli and Gīrnār *-āya*. This is wrong as is shown by the fact that in those dialects the dat. sing. of *a*-stems ends in *-āye*, while Pāli and Gīrnār have *-āya*. The ending *-āya* in Radhia, Mathia, and Rāmpūrvā is from **-āyā* in accordance with the law that I have established for these dialects, *IF.* 23. p. 228 ff. Delhi Sivalik *-āya* beside *-āyā* is due to analogy: as in the *a*-stems there existed the doublets *-ena*. *-enā* in the inst. sing., so *-āya* was made to match *-āyā* in the inst. sing. of *ā*-stems. Allahabad *-āya* is due to the same cause. It obtains exclusively exactly as does *-ena*.—Finally it should be mentioned that the genitive sing. *-āya* on the dedicatory inscriptions of Barhut, &c. have to be kept absolutely apart in deciding the origin of *-āya* on other inscriptions and in Pāli. For it is notorious that the dedicatory inscriptions are inaccurate in orthography; and *-āyā* and *-ayā*

are found as well as *-āya*. So that it would appear that the true orthography should be *-āyā*, not *-āya*, *-ayā*. If *-āya* was admitted as genuine, *-ayā* would also have to be admitted, and I fancy few would venture to parallel the *ā* with the Avestan.

41. The locative sing. of *ū*-stems ends in *-āyaṃ*: *parisāyaṃ*, *gaṇanāyaṃ*.
42. The nominative plural of *ū*-stems ends in *-āyo*: *mahidāyo*.
The ending is taken analogically from the *ī*-stems. For the literature, see Johansson. *Shb.* ii, p. 55.
43. The nominative singular of feminine *i*-stems nearly always ends in *-ī*: *dhāmmalipī*, *asampratīpatī*, *ahinī*, *sampratīpatī*, *samyapratīpatī*, *dhāmmānusasī*.
It should be mentioned that in the Dhauli redaction, this termination is also frequent, though not to the same extent as in the Gīrnār version. Hence I list it as characteristic of G. The dialects of the various recensions of the Pillar-Edicts show that the 'Māgadhan' dialect did not possess this ending. It is therefore likely that the termination *-ī* in the Dhauli redaction is a trace of the local dialect (cf. *JAOS.* 30, p. 77). The Kālsi, Shāhbāzgarhi, and Mansehra redactions can give no testimony owing to their deficient alphabets.
44. The nom. pl. of *i*-stems ends in *-iyo*: *aṭaviyo* (Shb. and Mans. *aṭavi*).
45. Original *ṛ*-stems kept as such: *pītari*, *mātari*, *bhātrā*.
46. The nom. sing. of *in*-stems ends in *-ī*: *Priyadasi* (Dh., J. *Piyadasi*).
The Shb., Mans., and K. redactions again can shed no light on this point. The Allahabad redaction of the Pillar-Edicts agrees with Dh. and J.; the Delhi Sivalik, Delhi Mirat, Radhia, Mathia, and Rāmpūrva redactions agree with G.
47. The dual *dvo* (Vedic *duvāu*).
48. The phonetic equivalent of Indic **catvāras* (Skt. *catvāras*) is retained: *catpāro*.
49. The nom. pl. of *tri*- is *trī*.
Trī is a nom. pl. masc. as is shown by the phrase *ete pi trī prāṇā*, i. 12. Johansson, *Shb.* ii, pp. 30, 65 wrong. *T* for *tr* in *tī* at i. 10 is due the influence of 'Māgadhan' *tiṃni*.
50. The phonetic equivalent of Indic **tad*, *ta*, is maintained.
51. The new-formation *ya* (**yad*).
52. *Ayaṃ* as a nom. sing. neutre: *ayaṃ phala*, xii. 9.

53. The nom. sing. neutre *idaṃ*.

It is true that [*id*]aṃ is found once in Shb., but it is so common in G. that it must be classed as characteristic of that dialect.

54. The pronouns *tārisa-*, *yārisa-*, *etārisa-* (see Michelson, *Classical Philology*, 5, pp. 219, 220).55. The pronoun *ne*, *nānī*.56. The instrumental singular *iminā*.

In *IF*, 23, p. 237 I wrongly assumed that Pāli *aminā* was a contamination of *iminā* and *amunā*. I now hold that *aminā* is an inst. sing. to such forms as *amī*, *amibhis*. and that *iminā* is a compromise between *aminā* and *imena*. The fact that *aminā* became reduced to a mere particle in Pāli points to its originality in formation.

57. Middle termination in verbs: *parākamate*, *karote* (twice: once possibly a third pl., unless a mere error). *maṃṇate*, *susrusatāṃ*, *anuvīdhiyatāṃ*.

In Shb. there are two cases, namely. *karotne*. i. e., *karonte*; *dīpista*; in Dh. also one, *maṃ[n]at(e)*; note too Kālsī *nikhami[tḥ]ā*.

58. The termination *-tha* in the optative *paṭipajetha*.59. Personal endings in *r*: *ārabhare*, *ārabbhisare*, *sususera*, *anuvatarāṃ*, *anuvatisare*, *sruṇāru*.

According to Bühler *anuvatarāṃ* should be emended to *anuvaterāṃ*, but this is not necessary as the form is explainable as it stands: see Johansson, *Shb.* ii, p. 90. The form *sruṇāru* is difficult. The reading is certain. Various conjectural emendations have been made. With the emendation *sruṇeru*, things are just as bad as ever as *-aṃ* does not become *-u* in the Gīrnār dialect. Personally I think we should try to explain the form as it stands. I would not be surprised if *sruṇāru* were a fusion of a subjunctive **sruṇāre* and an optative **sruṇeyu* (cf. Shb. *śruṇeyu*) somewhat as Dhāuli and Jangaḍa *nikhamārvū*; or a fusion between a subjunctive **sruṇāre* and an imperative **sruṇāntu* somewhat as the Sūtra imperatives in *-ātu* (a fusion of the subjunctive *-āti* and the imperative *-atu*). It will be noticed that we have such an imperative in Kālsī *sususaātu* as Bühler has pointed out. See also Johansson, *Shb.* ii, p. 89. However for the want of further material the whole matter must be left undecided.

60. The optative *asa*.61. The optative *bhave*.

62. The participle *karoto* (i. e. *karomto*) as a nom. sing.
63. The participle *karuṃ*, xii. 4, *karu*. xi. 4 (with *m* graphically omitted).
- What Franke says on *karu* at GGn. 1895. p. 535 is unconvincing. The form is certainly a participle. The stem *karu-* seems to be a compromise between *karo-* and *kuru-*.
64. Gerunds in *-tpā*. Skt. *-tvā*: *alocetpā*, *dasayitpā*, *paricajitpā*.
65. The future *likhāpayisaṃ*.
66. The *p*-causative in *sukhāpāyami*.
67. Certain lexical features as *svayaṃ*, *sāmīpaṃ* (*AJP.* 30, pp. 183–187), *mahidāyo*, *pasati*, *gaṇanāyaṃ*, *nīratham*, *nistānāya*, *gharu* (*AJP.* 31, p. 63), *paṃthesū*, *dighāya*, *ānāntaram*, *bhāvasudhitā* (unless an error induced by *kataṃnātā* and *daḍhabhatitū* in the same line), *tadātpano* (**tadātavana-?*), *srāvāpakam*, *ilokikū* (from *i* + *lokikū* as Franke first pointed out; formerly wrongly taken to be a contraction of *iha* + *l-*; per contra note *idha* = Skt. *iha*), *prucaṃtesu*, *ekadā*, *mādhūratāya*, *gacheyaṃ*, *apariyodhāya* (see below), *vračā* (see below), *niyātu*, *ñayāsu*, *ayāya* (see below).

I do not venture to decide if *ilokacasa* is a mere corruption or stands for **-lokatya-* as Bühler has suggested.

Lassen long ago (*I. A.* 11², p. 251 = II¹, p. 238) saw a root *gudh* 'enclose' (on which consult the St. Petersburg lexicons) must be assumed to account for *apariyodhāya*: see Johansson, *Shb.* ii, p. 97; Pischel, *GGA.* 1881, p. 1330, following Pott, I¹, p. 27, considers this *gudh* an older form of Skt. *gūh*; and he endeavors to support this view by the modern Indo-Aryan vernaculars. As I am ignorant of these, I cannot criticise his opinion from that point of view. But the Skt. participle *gūḍha-* and the Avestan *√gaoz* show that the Skt. *√gūh* comes from Aryan **ghūzh*, Indo-European **ghūgh*; see Wackernagel, *Ai. Gr.* i, pp. 247, 251; Brugmann, *Grundriss*², I. p. 558. *Gudh* is for **ghudh* by Grassmann's law, and is simply a parallel form to **ghūgh* as *vedh* (Old Bulgarian *vedq*, Lithuanian *vedū*, Avestan *√vad* 'führen', Old Irish *fedim*) to **vegh* (Old Bulgarian *vezq*, Lithuanian *vezū*, Avestan *√raz*, Sanskrit *√val*, Latin *velō*).

The word *vračā* is ordinarily taken as being the equivalent of Skt. *ṛkṣa-* with *ra* as the development of Indic *ṛ*. As this would be the sole case in which such a development is found in this dialect (per contra note *katā*, *vyāpatā*, *mago*, *vadhī*, &c.)

one would properly regard the form with suspicion. But another factor should be taken into consideration, namely, that strictly the word should be transcribed as *rvachā*, for we transcribe the same symbol as *rv* in *sarvatra*. I regard *rvachā* as a clerical error, being a mixture of **rachā* (Skt. *ṛkṣa-*) and **ruchā* (Vedic *rukṣa-*). It may be added that the other versions, save the Shāhbāzgarhi one which differs in the wording, have correspondents to *rukṣa-*. In Prākṛit we have the equivalents of both *ṛkṣa-* and *rukṣa-*.

Franke's explanation of *ñayāsu* being due to sandhi is untenable as other examples of such sandhi are not found in the Gīrnār redaction. If *niyātu* is phonetic for **niryāntu*, then Johansson's explanation (*Shb.* ii. p. 87. footnote 1) is correct. But it is possible that we have an analogical extension of *ni* from **niḥ*. Then *ñayāsu* would be for *ny-a-*, from *ni-a-*. The form *ayāya* is an imperfect of the \bar{y} *yā* conjugated according to the *ya*-class.

These are all the special characteristics of the Gīrnār dialect that I venture to point out at present. Opinions will probably differ regarding some minor points as to what should have been left out and what should have been included. For examples vowel-quantities are not distinguished in the Kharoṣṭhī alphabet, nor *ī* from *i*, *ū* from *u* in the alphabet of the Kālsī recension. Hence I have ignored for the most part the dialects the alphabets of which are deficient in the way indicated, when treating vowel-quantities. Again I have not listed the contraction seen in Gīrnār *morā* (Skt. *mayūra-*) as characteristic of the dialect, because I suspect 'Māgadhan' influence in the *Shb.*, Mans. correspondents (*JAOS.* 30, p. 84). But I have not ventured to list this contraction as a special point of contact between the Shāhbāzgarhi, Mansehra and Gīrnār dialect, for the reason that at present there is no positive evidence for such contraction in the dialects of *Shb.* and Mans. Similarly regarding Gīrnār *manusacikichā* (Skt. *cikitsā-*), and a few other cases. In all such cases I have tried to use my best judgement; and I am confident that it will be found that I have listed all leading features of this dialect.

Special points of contact with the dialect of the Shāhbāzgarhi and Mansehra redactions.

I have previously treated these in *JAOS.* 30, pp. 87—89. To them may be added *ayam* as a nom. sing. feminine. If the reading of *Shb.* [oṣuḍh]ani be correct, the *u* and *ḍh* are

to be added also; cf. Gīrnār *osudhāni*, 'Māgadhan' *osadhāni*. Mans. *oṣa[ḍhi]ni* is a corruption of some sort, the *a* may be due to 'Māgadhan' influence; but *-ini* is surely unintelligible. The *ḍh* of Gīrnār *osudhāni* is, of course, due to the influence of the preceding (original) lingual *ṣ*. This tends to place the change of *ṣ* to *s* is a late period of the Gīrnār dialect. The *dh* of 'Māgadhan' *osadhāni* points to an early change of *ṣ* to *s* in this dialect. Moreover Gīrnār *sakam* (i. e. *sakkam*), Shāhbāzgarhi *sako* (i. e. *śakko*) should be associated: cf. Jau-gaḍa *sakiye* (Skt. *śakya*-). The *-y-* passive (Māgadhan *-iy-* [JAOS. 30, p. 91]), and the participle *saṃto* (written *sato* in Shb.; Fleet wrong) belong also under this rubric. It is quite clear that the final merging together of Indic *s*, *ś*, *ṣ* into *s* is a late development in the Gīrnār dialect. I have shown above that *ārś* and *ārṣ* are treated differently: this shows that *ś* and *ṣ* must have been kept apart for some time. The fact that original *rś* converts a following intervocalic *n* to *ṇ* presupposes an intermediate stage **rṣ* before the final stage *ss*. Similarly the change of *ś-st* to *s-st* presupposes that the change of *ś* to *s* was late: see JAOS. 30, p. 89, AJP. 30, p. 291. So that it is highly probable that this retention of Indic *s*, *ś*, *ṣ* as distinct sounds is to be connected with the maintainance of these in the historic period of the dialect of the Shāhbāzgarhi and Mansehra redactions. Furthermore it appears that the assimilation of *r* to certain adjacent consonants in the Gīrnār dialect is also of recent origin. For *ārś* and *ārṣ* are kept apart though they are treated precisely alike in the dialect of the 'Māgadhan' versions. Again *r*, though assimilated to following dental stops, does not convert these to linguals as is the case in the 'Māgadhan' dialect. Hence the assimilation though a parallel development was an entirely separate one. In so far as *r* is not assimilated to certain adjacent consonants, this tends to show that the assimilation to certain consonants is late. (I should add however that to-day I think it quite certain that the assimilation of *r* in the combination *ārṣ[y]* is early, and common to Shb., Mans., and G. Formerly I was doubtful regarding this point.) If then these two suggested rapprochements are true, then the Gīrnār dialect was very much more intimately related to the dialect of the Shāhbāzgarhi and Mansehra redactions than hitherto supposed.

In my essay on the etymology of Sanskrit *punya-*, which is

in *TAPA*. 40, I have collected some evidence that tends to show that *r* was assimilated to an immediately following *ṛ* in the dialect of Shb. and Mans. The evidence, as I stated there, is not wholly satisfactory. Yet it may be urged that at any rate *r* never is found before *ṛ* in the transmitted texts. The assimilation is found in the Gīrnār dialect; and if it took place in the dialect of Shb. and Mans., this would be another special point of contact. In the 'Māgadhan' dialects *ṛ* is lacking; its place is taken by *n*. Now I do not think it all probable that this *n* is an archaism as compared with Sanskrit, Gīrnār, &c. *ṛ*, but that it is rather a secondary change from Indic *ṛ*. If this is so, then *ṇṇ* from *rṇ* would presuppose an intermediate stage *ṇṛ* (i. e. *ṇṇ*); and thus it is possible that the assimilation of *r* to an immediately following *ṛ* is rather a Pan-Middle-Indic trait as is the assimilation of stops of one order to stops of another order. But the fact that the assimilation of *r* to *rṣ* in the 'Māgadhan' dialect must be kept apart from the corresponding assimilation in Gīrnār (see above) is against this belief. It will be recalled that both *ṛ* and *ṣ* are linguals.

Special points of contact with the dialects of the Shāhbāzgarhi, Mansehra, and Kālsī redactions.

I have treated these in *JAOS*. 30, p. 90. To the traits mentioned may be added *asu* as a third pl. optative (G., Shb. *asu*, K., Mans. *a[su]*); and *o* for *uo* in Gīrnār *pusopajāni*, &c.

Special points with the dialect of the Kālsī redaction.

Owing to the fact that in edicts i—ix the dialect of the Kālsī redaction is practically pure 'Māgadhan', and that in the remaining edicts 'Māgadhisms' are not infrequent, it is difficult to point special points of contact with the Gīrnār dialect, even if they existed. As I mentioned before (*AJP*. 30, pp. 297, 417, 421) there is some evidence to show that in the Kālsī dialect *r* though assimilated to following dental stops, does not convert them to linguals; and there is some evidence, though very meagre, to show that in the true native words original *r* does not lingualize adjacent following dental stops. It is possible that these constitute real special points of contact with the Gīrnār dialect. But if the assimilation of *r* in

the case of *rth*, &c. is a late development in the Gīrnār dialect, as I have assumed above, then the assimilation of *r* in such cases may be merely a parallel development, not a special point of contact. And in so far as the Gīrnār and Kālsī dialect do not always agree in having the same vowel developed from Indic *ṛ* (G. *kata-*, K. *kiṭa-*) it is possible that the non-lingualization of dental stops after original *ṛ* in both dialects is a chance-coincidence (the *ṭ* of *kiṭa-* is likely enough due to 'Māgadhan' *kaṭa-*). At present these are the only possible or probable special points of contact between the two dialects that I can point out. If they are not real points of contact, we face the proposition that they are no special points of contact between the Gīrnār and Kālsī dialects. This would lead to an important conclusion, namely, that there are no true special points of contact between the dialects of the Gīrnār, Kālsī, Shāhbāzgarhi, and Mansehra dialects: where apparently such exist we must assume that the special points of contact are between the Gīrnār and Shāhbāzgarhi, Mansehra dialects on the one hand: and between the Kālsī and Shāhbāzgarhi, Mansehra dialects on the other. [Note J. *kaṃ(mane)*, Dh. (*k*)*aṃ(ma)ne* as opposed to G. *kaṃmāya*, Shh. *kramaye*, K. *kaṃmāye*. Mans. *kramane* is a 'Māgadhism'.]

Special points of contact with the 'Māgadhan' dialects of the Fourteen-Edicts.

It is not always easy to tell what are true points of contact between these dialects. For example *my* is retained in G. as well as the 'Māgadhan' dialects. But Mansehra *my* is without question a 'Māgadhism' as is shown by the Shāhbāzgarhi correspondent *mm*. Now as *y* otherwise is invariably assimilated to a preceding adjacent consonant in the Gīrnār dialect, it would seem likely that *my* in this text was a 'Māgadhism'. As a parallel where a 'Māgadhism' has completely usurped the place of a native product we have Mansehra final *e* for *o*, and *paṭi* for *prati*. Unfortunately we have no means of checking the Gīrnār redaction by another text written in the same dialect as we have in the case of the Mansehra redaction. We must admit our inability to determine the point at issue with absolute certainty. The most we can say is that as there are so many special points of contact between the dialects

of G., Shb., and Mans. that it is highly probable that *mm* for *my* was also such a point of contact.

We encountered the same difficulty in treating the special points of contact between the Mansehra and Shāhbāzgarhi dialect and the 'Māgadhan' dialect (*JAOS.* 30, pp. 91—93). I may perhaps add that to-day I have what I consider conclusive evidence that gerunds in *tu* in Shb. and Mans. are 'Māgadhisms': see *AJP.* 31, p. 60.

A few apparent special points of contact can easily be shown to be entirely separate though parallel developments. For example there is but one sibilant in both. But I have shown that this is a relatively late development in the Gīrnār dialect. Again though there is partial agreement in the assimilation of *r* to adjacent consonants in these dialects, the fact that they differ in the treatment of *-ārṣ(y)-*. G. *-ās-*, 'Māgadhan' *-ass-*, shows that the assimilation of *r* in these combinations is a wholly separate development. Moreover though *r* is assimilated to dental stops in both when they follow immediately, yet in the 'Māgadhan' dialect the dental stops are thereby converted to linguals, whereas in the Gīrnār dialect the dental stops remain as such (see *AJP.* 30, pp. 296, 297, 416, 417, 419). Consequently the entire process of assimilating *r* to any adjacent consonants whatsoever must be kept absolutely apart in the dialects concerned. They are parallel developments but not special points of contact. Just so in regard to the treatment of original *y*. It becomes *u* for the most part in both dialects. But adjacent following dental stops are not thereby converted into linguals in the Gīrnār dialect as they are in the 'Māgadhan' dialect. Hence the process though similar in both case is an entirely independent parallel development. The fact that the same vowel is not always developed from *r* (e. g. Gīrnār *mago*, 'Māgadhan' *mige*, Skt. *mṛgas*) confirms this belief.

What then are true special points of contact between the Gīrnār and 'Māgadhan' dialects? Indic *sv-* remains, e. g. *svaga-* (i. e. *svagga-*), Skt. *svarga-*; *l* for *d* in the Iranian loan-word *-lipī*; Indic *śc* becomes *cch* (written *ch*), e. g. *pachā*, Skt. *paścā* (see *JAOS.* 30, p. 85); *-aya-* remains (*JAOS.* l. c. p. 91); *kiṃ ti* (Shb., Mans., K. *kiti* (see Johansson, *Shb.* ii, p. 52); intervocalic *-j-* is retained (*JAOS.* 30, p. 83); *-j-* is retained in the correspondents to Skt. *vyañjanatas* (*JAOS.* 30,

p. 83); the gen. sing. of *in*-stems retains the old form, e. g. G. *Priyadasino*, J., Dh. *Piyadasine* (Shb., Mans. *Priyadraśisa*, Kālsī *Piyadasisā*; Mans. *Priyadraśine*, K. *Piyadasine* are 'Māgadhisms'); the infinitive in *-tavz*. These are all the special points of contact that I venture to enumerate at present. Note how few they are as compared with the special points of contact with the Shāhbāzgarhi and Mansehra dialect.

The Babylonian Calendar in the Reigns of Lugalanda and Urkagina.—By GEORGE A. BARTON, Bryn Mawr College, Bryn Mawr, Pa.

WITHIN the past three years a large number of documents¹ from the temple archives of Telloh, dated in the reigns of Lugalanda and Urkagina have been published, and these documents show that the calendar of the period which they represent was in some respects different from the calendar of the time of Sargon, or of the dynasty of Ur, or of Hammurabi, or of the later periods.

For the most part, the names of the months in the time of Lugalanda and Urkagina were taken from agricultural processes and the agricultural festivals connected with them. There is but one exception to this; one month is named from a star. The names of these months had not yet crystallized into one conventional form. The names of several of them are expressed in a great variety of ways. Two or three of these names have survived into later times, as have fragments of several others of them. One who would reconstruct the calendar of this early time must be guided by the following clues. 1. He must adjust the month to the season described in its name. A harvest festival month must come at the time of harvest; a sheep-shearing festival at the time of sheep-shearing, &c. 2. He should

¹ These are the Russian publication of the collection of Nicolas Likhatscheff, St. Petersburg, 1908, (cited below as Ru). Allotte de la Fuye's *Documents présargoniques*, Fasciculus I, 1908, Fasciculus II, Paris, 1909, (cited below as DP), a few of the texts in T. G. Pinches, *Amherst Tablets*, London, 1898, (cited below as A). De Genouillac's *Tablettes sumériennes archaïques*, Paris, 1909, (cited below as TSA). These works contain more than five hundred documents from this period. To these should be added the seventy six tablets comprising series one and two in Thureau Dangin's *Recueil de tablettes chaldéennes*, Paris, 1903, (cited below as RTC). Professor A. T. Clay has kindly permitted me to examine his unpublished copies of the texts of this period which belong to the Library of J. Pierpont Morgan. (They are cited below as Mo.)

study the survival of the month names of this period and their fragments in the later times, and may often gain help in determining the place of a month in the earliest time by the place its name held in later month lists. The use of these lists requires caution, however. They represent not only other times, but other localities, and often the survival of other primitive names. Then several things may have affected them. If these month names originated before 3000 B.C., the precession of the equinoxes has carried the zodiac forward since that time, so that whereas then the vernal equinox occurred in the sign of Gemini, from about 3000 to about 750 it occurred in the sign of Taurus, and then in the sign of Aries. While in this earliest period astronomical considerations played almost no part, it is conceivable that at a later time the months may have been attached to the zodiac sufficiently to be slightly drawn out of position by the precession of the equinoxes. Again, special displacements occurred. King Dungi, of the dynasty of Ur, was deified and was assigned a festival. It can, I think, be shown that when that occurred the feast of the goddess Bau was pushed forward, and held a month later. Possibly in one or two instances the name of a month was through a new interpretation transferred to a different part of the year; but this should not be assumed without proof. The month lists which are of assistance in this study are published as follows: RTC, No. 180; EBH, p. 299; VR, 43; VR 29, 1—13a. This last list is repeated in ASKT, 64, 1 ff., AL³, 92 ff., and AL⁴, 114 ff. To these should be added for the time of the dynasty of Ur the comprehensive grain account in CT. 111 (No. 18343) and TCI No. 77, in which the months are all mentioned, in such various combinations that their position in the year can usually be determined.

3. The nature of the transactions in the reigns of Lugal-anda and Urkagina dated in these various months should be taken into account to see what light they throw upon the season of the year. 4. The nature of the transactions in dated documents of the dynasty of Ur, (these published in CT, I, III, V, VII, IX & X, in Reisner's *Tempel-Urkunden*,¹ in RTC, in A, in Barton's HLC,² in Lau's *Temple Records*,

¹ Cited as RU.

² *Haverford Library Collection of Cuneiform Tablets*. Philadelphia 1905—1909.

and Radau's *Early Babylonian History*, cited as EBH), should be studied for light as to the season at which certain things were done. The assumption seems just that similar agricultural work had to be done at the same time of year.

In the following discussion all these sources of information are drawn upon.

There are two reasons why this discussion is undertaken. 1. Genouillac in TSA, p. xviii ff. has made an arrangement of the calendar which starts, I believe, with a wrong premise, and is accordingly wrong in many of its conclusions.¹ 2. The Russiau publication referred to above, which contains more than three hundred tablets and much rich material on the calendar, was apparently unknown to Genouillac, and the addition of this material warrants a new discussion.

Genouillac rightly begins his discussion with the month of the Feast of Bau. This month name continued in common use through the time of the dynasty of Ur, and Gudea twice states that the ZAG-MU, or New Year's festival occurred on the feast of Bau (stat. E. v. I—2, stat. G 111. 5). Genouillac assumes accordingly that the month of the Feast of Bau was identical with the month March 15th to April 15th. In this he is, I believe, mistaken. In VR 43, 36 a the month of the Feast of Bau² is said to be one of the names for the month DUL-AZAG. In VR, 29, 7a and ASKT, 64, 7a DUL-AZAG is said to be a name for Tashrit, the seventh month of the year. The occurrence of this name in this position in this list can, I think, be explained only as a survival of the position of the month in a list earlier than the dynasty of Ur. It follows accordingly that down to the time of Gudea the year at Telloh began at or near the autumnal equinox, as the Jewish year did in pre-exilic times, and as the religious year does among the Jews to the present day.³ This fundamental error has made much of Genouillac's outline of the calendar wrong. It is hardly conceivable that an important feast should have been transferred from the spring to the autumn in this way. In a country where the winter is mild and is a season of agricultural work which culminates

¹ Kugler. *Sternkunde und Sterndienst in Babel*. II. Buch. Münster in Westfalen, 1909, p. 176 ff. accepts Genouillac's results.

² The phrase reads ITU [EZIN-]d BA-U.

³ This had been recognized by Radau, EBH, 295.

in a spring harvest, and where the summer is a time of drought, it is more natural to begin the year in the autumn when vegetation is reviving after the summer heat. In Babylonia, too, this corresponds to the beginning of the date harvest¹—a harvest of great importance to the country—when the goddess of plenty begins anew to bestow her gifts. Such a time was most fitting both for a festival to the goddess and the beginning of a new year. The month of the Feast of Bau was, then, September-Oct. Eighteen documents from the reigns of Lugalanda and Urkagina are dated in this month. They are: Ru. Nos. 64, 167, 209, 217, 219, 235, 239, 253, and 261. DP, Nos. 51, 96, and 112. TSA, No. 20, A. No. 14, RTC, Nos. 27 and 39 and Mo. Nos. 1476 and 1494. These documents, however, throw little light on the month itself, as they consist almost altogether of pay rolls and lists of sacrifices—both of which might be written in any month of the year. The predominance of lists of sacrifices is, however, fitting to the new year season.

Later at the time of the dynasty of Ur the month of the Feast of Bau was pushed forward two months. It happened probably in part at the time king Dungi was deified. In honor of the king, perhaps, the feast of the New Year was given to his month, and made the Feast of Dungi, while the Feast of Bau was transferred to the next month. By that time other causes had already pushed the month of Bau forward one month. It still came, however, approximately at the season of dates. So it came about that a pay roll of dates (CT, VII, No. 17765) is dated in the month of the Feast of Bau.²

Thus all the indications that we have point to the autumn, not the spring, for the month of the Feast of Bau, and to a year in ancient Lagash which began in the autumn.

Our next step should be guided by RTC, No. 39 and Mo. 1476—two tablets which, though dated in the month

¹ See Doughty, *Arabia Deserta*, 1st ed. I. 557, 561, Zwemer, *Arabia the Cradle of Islam*, 125, and Barton, *Semitic Origins*, 111.

² It is no disproof of this that an account of quantities of dates sold for money (CT, V, 17765) should run from the month Amarasi (Jan.—Feb.) to Shukul (July—Aug.), but rather a confirmation of it, for these would be the months when dates were sufficiently scarce to be bought for money.

of the Feast of Bau. contain lists of provisions for the month of the DIM-eating feast of Nina. DIM was a kind of grain, the ripening of which was apparently celebrated by a feast. DIM-eating is expressed by the signs DIM-KÙ. Here we are confronted by a difficulty. DIM-KÙ is almost certainly the same as the combination found in the dynasty of Ur texts, usually read by scholars ZIB-KU. The four wedges of DIM, when carelessly written, as they were in the period of Ur, have not until recently been recognized as the equivalent of the earlier sign. On the tablet, RTC, 180 (of the Ur period) DIM-KU is the third month *before* the month of the Feast of Bau, and not the month after it. There were, however, in the Lugalanda period two months which bore the name of this grain—one was the month of the DIM-eating feast of Ningirsu, the other the DIM-eating feast of Nina. In countries like Egypt and Babylonia, in which agriculture is fostered partly by the overflow of the rivers and partly by irrigation, three different harvests may occur. In Egypt today there is the winter crop sown after the subsidence of the inundation, which is raised with almost no irrigation.¹ In Babylonia, where there are winter rains, such crops grew with no irrigation at all. In Egypt the summer crops are sown in April, and are harvested, according to the rapidity with which they ripen, from August to November. Babylonia, too, as will be shown below, had also its summer crops raised by irrigation.² DIM probably included the two grains, sesame, and the grain known today in Babylonia and Palestine as dhurah (𐎣𐎶). Sesame is harvested I am informed by Dr. John P. Peters and D. Z. Noorian (who was formerly a resident of Babylonia), in July and Aug., while dhurah is harvested late in the summer. If the sign designated two grains which ripened at different periods, or if two crops of the same thing were raised in the same summer, the feast of the first harvest would naturally be dedicated to Ningirsu, and the second, to Nina. At all events, the indications of the tablets are that there were two separate feasts, which celebrated the harvesting of this grain.

¹ See Baedeker's *Egypt*, p. lvi.

² See Rawlinson's *Ancient Monarchies* I. 12, Jastrow's *Religion of Bab. & Assy.*, p. 29, Roger's *History of Bab. & Assy.* I. 273 ff., Barton, *Semitic Origins*, 156.

We conclude then from RTC, No. 39 and Mo. 1476 that the month of the DIM-eating Feast of Nina (EZEN-DIM-KU-^aNINA) followed the month of the feast of Bau (EZEN-^aBA-U), and corresponded to October-November.

The following tablets of the time of Lugalanda and Urkagina are dated in this month: Ru, Nos. 6, 230, 254, 272, 288, DP, Nos. 106, and 109. Their contents present quite a variety, Ru, 6 is a pay roll; Ru, 230, a list of skins of sheep; Ru, 254, quantities of wool, 269 and 272, quantities of fishes which formed an important part of the festival; Ru, 288, quantities of drinks and wood; DP, 106 and 109, both record quantities of dates and some other fruit. All the transactions are appropriate to an autumn month.

Ru, 269 states that fishermen brought quantities of fish for "the grain-eating, the DIM-eating festival of Nina (EZIN ŠE-KÙ EZIN DIM-KÙ-^aNINA). This shows that the DIM-eating festival of Nina was also called sometimes by the more general name of "grain-eating festival of Nina"—a fact which proves that the month name ITU EZIN-ŠE-KÙ-^aNINA, which is found in Ru, 57, 225 and 260 is a variant name for the "Month of the DIM-eating festival of Nina". These tablets are respectively a pay roll, a list of skins, and a list of supplies.

RTC, 30, a tablet of the time of Lugalanda, records the bringing of a quantity of fish for the DIM-eating feast of Nina of the month of the Feast-of-the-going-out-of-the-sea (EZEN-AB-UD-DU). If the DIM-eating feast of Nina was in this month, the name must have been another name for the month Oct.-Nov.¹ Genouillac makes it follow the month of the Feast of Bau, so making it April-May, but is unable to explain the appropriateness of the name. That it belongs in the part of the year in which we have placed it is shown by V, R, 43, 52—57a, where the name spelled AB-BA-UD-DU occurs as the name of the 10th month, Tebet (cf. V, R, 29, 10a), i. e. Dec.-Jan. It has there been pushed along one month further—a thing which probably happened when the month of the Feast of Bau was pushed forward.

¹ The Sumerian is ambiguous. It may be interpreted to mean that EZIN-AB-UD-DU is simply the date of the tablet in which case EZIN-AB-UD-DU would be another name for the month of the Feast of Bau.

This name—month of the Feast of the-going-out-of-the-sea—probably designated the month of low water. The overflow of the Tigris and Euphrates, which begins with the Tigris in March, has ceased on the Euphrates by the end of September. The rains do not begin until December, so that the month Oct.-Nov., after the overflow and before the rains, would be the month of lowest water. This again confirms our placing of the month. What is probably a variant of this name occurs in an unpublished tablet in the Harvard Semitic Museum, a copy of which has been loaned me by Dr. Mary I. Hussey. It reads: ITU GAR-KA-ID-KA, "Month of the food of the river",¹ and is most probably interpreted as a variant name of this feast.

As the next month—November-December—Genouillac places the month SIG-BA, the month of wool, on the ground that as the cool weather approached the people would be employed in making their winter garments. The one document dated in this month known to him (TSA, 27) is a receipt for flails and some wooden pegs from a carpenter. One would expect such objects to be sold nearer the threshing season, which is shown below to have coincided in Babylonia with the time of sheep shearing. There was a month named from the shearing of the sheep, as Genouillac noted and as we shall show below, and the "month of the wool" would be a fitting alternate name for that. It is shown below that these names were applied to the month March-April. Moreover in the time of the dynasty of Ur the wool was distributed to the weavers either in the month of the Feast of Tammuz (HLC, Pl. 51) or the Feast of Bau (HLC Pls. 23, 24), that the garments might be made before cold weather.

Nevertheless I suspect Genouillac is partly right in thinking that Nov.-Dec. had something to do with garments. A new month-name, which may be thus explained, has come to light in the Russian publication. In Ru 241, a list of skins for garments is dated, ITU ŠI-GAR-MA, which may be rendered, "the Month they 'put on' garments" (cf. Br. No. 11978 and No. 6778). As one sees men in the East today clothed in the cold rainy time in sheepskin coats, so this month-name appears to refer to time of putting these on.

¹ It seems reasonable to regard GAR-KA as a variant writing of B. 11997, *ukultu*, rather than to interpret by M. 9232, *egirru*.

As to the name of the month Dec.-Jan. in this early time, I am in doubt. I am, however, tempted to believe that it may have been the month ITU UZ-NE-GU-RA-A-A (Ru, 226), the "Month they call the goats." After the rains begin, grass begins to grow, and it would be a natural time to lead the goats away to pasture again. Possibly a reference to some such process has survived in the month name ITU APIN-GAB-A (V, R. 43, 40—45a), which might be read the "Month the shepherds separate." If that name perpetuates the name of the one before us, and our supposition as to the time of year intended is correct, we must suppose that it was displaced at a later time and put back, for in V, R, 43 APIN-GAB-A stands for Oct.-Nov. The text Ru, 226, is a list of skins, and such lists are dated at all seasons of the year.

This month (Dec.-Jan.) corresponds to the month MU-ŠU-UL the period of the dynasty of Ur. The large transactions of that dynasty dated in that month are payments in wheat (CT, VII. 18395) and flour (CT. X. 12246)—transactions which do not help us in determining the correctness of our guess.

Next, we believe, should come the month called in Ru, 1, ITU AMAR-A-A-SIG-GA and in Ru, 222, ITU AMAR-A-A-SI-DA. AMAR was either young grain, or a variety of grain (cf. HLC, Pt. II, p. 23, i, 9 and p. 24, iii, 10). As AMAR stands for the young of animals also (cf. Reisner, U, No. 2, iii, 6 and *passim*), probably here it stands for young grain. The month-name probably means, the "Month of the filling-out-of-the-young-grain." According to DP, 60 and 69, there was a "Feast of Amaraasi."¹ DP. 60 is a list of sheep and quantities of oil furnished to the wife of Urkagina for that festival, and DP. 69 of food and garlands (in Semitic *Minnu*; cf. M. 3853 and BA, V, 638, 13) furnished to the same lady. There was, then, a kind of a festival of first fruits from which the month was named. We place the month in Jan.-Feb. because in CT. I, No. 77 it is placed just before ŠE-KIN-KUD, and throughout the dynasty of Ur held this position. Genouillac, who apparently gains his conceptions of the Babylonian agricultural seasons from the climate of southern France, makes this month May-June and calls it "the month when the crops begin to whiten." Many grain account tablets from the

¹ This would be a feast of first fruits similar to the Hebrew feast of unleavened bread.

time of the dynasty of Ur, as will be pointed out below, show that the harvest was over, the grain threshed and ready for distribution by the month April-May, so that it must have been possible for them to have the feast of first fruits in February.¹ Of the two documents from our period dated in this month, one (Ru, 1) is a long pay roll (and pay rolls are dated in all months of the year), and the other (Ru, 222) is a list of skins received. Skins were likewise received in all months. In later times the month Amaraasi seems to have been the time for leasing asses, which were much used in the harvesting operations of the months which followed. Thus RU, 29 is an ass account from Amaraasi of one year to Šukul (July-Aug.) of the next. Flour accounts are dated in Amaraasi (CT, VII, 12932), payment of wages to IM-E-KID-A workmen (CT, X, 14313), payments of wheat (CT, VII, 12940 and 18409),

¹ It is possible that AMAR-A-A-SIG-GA was Feb.-March and that ŠE-KIN-KUD was one of the names for March-April. One would be forced to think this the case, if he reasoned from modern conditions only. Mr. D. Z. Noorian writes me: "In southern Babylonia barley is harvested in the latter part of March, immediately after barley, wheat is harvested, and so is rice rather early in April. Round about and south of Nippur all tender vegetation dies or dries up by the end of March except such as grows along the canals or swamps." Hilprecht. *Babylonian Expedition of the University of Pennsylvania*, Series D, Vol. I. p. 446, states that the workmen left Nuffar at the middle of April to harvest their barley and attend to agricultural affairs. This would imply that, if the climate remains unchanged, AMAR-A-A-SIG-GA and ŠE-KIN-KUD should come a month later than we have placed them. It is, of course, possible that by the period of Ur these months may have been pushed forward one place. It should be remembered, however that the names of both months remained unchanged during the Ur, period, that both were names the meaning of which was well understood, and that, if their season had not really corresponded to the actual time of the harvest at that period, it is highly probable that other names would have supplanted them. As noted above, too, there is abundant evidence in the Ur texts that at the time the grain was threshed and ready for storage by April-May, so that it is probable that in ancient times the harvest came slightly earlier than now. Possible confirmation of some climatic change in the Mesopotamian valley may be found in the fact that as late as 1470 B.C. elephants were still roving in upper Mesopotamia in the general region of Carchemish. Thothmes III. of Egypt hunted 120 of them there in the vicinity of Niy. (See Breasted *Ancient Records, Egypt*, Vol. II, § 588, and *History of Egypt*, p. 304.) This would seem to be evidence that in ancient times the climate was warmer than now.

and an account of the sale of dates for money, brought to a close (CT, V, 17752).

The next month was called ITU ŠE-KIN-KUD-DU, the "Month of cutting-the grain," a name which the month Feb.-March bore at the time of the dynasty of Ur (cf. TCI, No. 77). One document from our period is dated in it, RTC, 55. It is a list of quantities of AŠ-plant foods. From V, R, 43, 1—6 b it would appear that the month Amaraasi later was named from AŠ, perhaps because the AŠ-plant was cut in it. At all events in the times of Urkagina AŠ-plant products were to be had in the month ŠE-KIN-KUD.

Probably a variant name of this month at this early time was ITU-AMA-UDU-TUK, or "Month the sheep become mothers." A tablet of the reign of Lugalanda, (Ru, 184), bears this date. It is the record of articles brought by a shepherd for the wife of Lugalanda. The month of the yearning time in the East is most naturally Feb.-March.

The next month, called in later times ŠE-IL-LA (cf. CT, III, 18343, iii, 31 and *passim*), was agriculturally a busy one in Babylonia, and was, if I rightly understand the agricultural references, designated by several names in the period of Lugalanda and Urkagina.

To begin with a name in which the name elements which have survived to later times appear, it is called in Ru, 234, ITU UDU-ŠU-ŠE-A-IL-^dNINA, the "Month when the goddess Nina carries grain to the sheep." In three documents, (Ru, 211, Mo. 1474, and TSA, 18), it is written, ITU UDU-ŠE-A-IL-LA, the "Month sheep-grain-carried," which is evidently an abbreviation for the longer form previously quoted. Other forms of the name are as follows: ITU UDU-ŠU-ŠE-A-GU, "Month to the sheep grain they feed," (DP, 47), ITU UDU-ŠU-ŠE-A-^dNINA, "Month to the sheep the grain of Nina," (Ru, 153, 176, 265), ITU UDU-ŠU-ŠE-A-^dNIN-GIR-SU, "Month to the sheep the grain of Ningirsu," (Ru, 196, 208, 274, TSA, 6, Mo. 1503); ITU UDU-ŠU-ŠE-A, "Month to the sheep the grain," (Mo. 1469); ITU ŠE-GAR-UDU, "Month, they feed the sheep," (Ru, 231); and ITU AN-TA-GAR-RA-A, "Month of feeding," (RTC. 20).

Genouillac puts this month in July-Aug. on the ground that forage was short and they then had to feed the sheep. I doubt the correctness of this for two reasons. 1. The part of

the name that has survived (ŠE-IL-LA) was, as every one knows, the name for March-April. 2. There is no one month in the summer when sheep had to be fed more than during some other months. In CT, III fourteen texts published on plates 11—15 record certain amounts of grain which were for certain sheep and cattle, but the texts are dated all the way from Gudranemumu (May-June, No. 13892), to the Feast of Dungi (Sept.-Oct., No. 13882). On the other hand it is probable that the sheep were used in threshing the grain (goats were used in the time of Hammurabi, see Code, xxxviii, 96—98), and that while the threshing was going on they were fed on straw, *tibn*, and perhaps some grain. This would concentrate a feeding on an especial time, and would agree with the survival of the name to later times. I therefore believe we should place this month at March-April where we find it later.

There was another phase of activity, to which the energies of a large portion of the community were directed. The time at which sheep are shorn in Babylonia today, Mr. D. Z. Noorian informs me, is the end of March. So the sheep which had been collected to assist in the threshing were in ancient times probably shorn of their wool before being sent back to pasture again. Accordingly, when we find a month named ITU MAL-UDU-UR, "Month of sheep-shearing" (RTC, 36), we are justified in supposing that it also refers to the month March-April. A shorter form of this name is found in Ru, 228, where it is called ITU MAL-UR. "Month of shearing." Sheep-shearing was an important function and was attended with feasting, as is shown in 1 Sam. 25 and 2 Sam. 13:23, and it is not strange that an agricultural population should have named a month from it.¹ A more popular name at Lagash seems to have been ITU SIG-BA, "Month of wool." This name occurs five times in the documents of our period (Ru, 9, 224, 229, Mo 1456, and TSA, 27). There can, it seems to me, be no doubt that it refers to the same month as the sheep-shearing. Still another variant of the name appears in Ru, 63, where it is written ITU SIG-BA-U-E-TA-GAR-RA-A. "Month the goddess Bau bestows the wool."

That these four names which have to do with wool refer to the same month, seems to me most probable. At the time of the dynasty of Ur, wool for clothing was distributed

¹ See Additional Note on p. 271.

from EZIN-^dDUMU-ZI to EZIN-^dBA-U (July to Oct.), see HLC, Nos. 1 and 29. Between the sheep-shearing and these dates there was time for cleansing it.

The texts which we thus place together treat of the following topics all of which are appropriate to the time of year, viz.: DP, 47, is a list of provisions of all sorts presented by Barnamtarra, wife of Lugalanda, to various temples; TSA, 18 is a pay roll; TSA, 6, a list of perfumes; Ru, 208, a list of oxen for sacrifice; Ru, 153 and 176, sheep and goats for sacrifice; four tablets contain lists of sheep-skins; two, lists of fishes; two supplies of grain; and one (Ru, 211) is a receipt for a cow.

The next month was named from the storing and accounting for grain.¹ Four tablets (Ru, 16, Mo. 1505 and TSA, 14), bear the date ITU KARU-DUB-BA-A, or "Month of storehouse accounts." Ru, 249 expresses it ITU KARU-DUB-DA. On one text (DP, 119), the month is written ITU KARU-IMI-A-TA. IMI is here a variant of DUB in the sense of *Duppu*, "account" (cf. Br. 8360), so that the name still means "Month of storehouse accounts." On still another document (RTC, 56) it is expressed ITU ŠI-NAM-DUB-NI-BA-DUR-BA-A "Month when accounts are opened" (literally "established," cf. Br. 10528). This refers to the fact, which the great grain account tablet of the dynasty of Ur (CT, III, 18343) establishes, that grain accounts which ran for a year were opened in GAN-MAŠ (April-May, the month was called GAN-MAŠ from the time of Sargon, a name not yet found in the Lugalanda documents) and ran to ŠE-IL-LA. See CT, III, 18343, vii 34, 35, viii 46, 47, x 23, 24 and xvi 42, 43. CT, V, 18358 is also wheat account for five years which ran from GAN-MAŠ to ŠE-IL-LA. It was also a favorite time for the beginning of shorter accounts. All the following texts are wheat accounts beginning in GAN-MAŠ: CT, VII, 17761, CT, IX, 13134, 19050, 21348, CT, X, 14308. While wheat accounts exist which were opened in other months, (e. g. ŠE-IL-LA, CT, VII, 18427, GUD-RA-NE-MU-MU, HLC, 61, EZIN-^dNE-ŠU, CT, X, 14316, ŠU-KUL, CT, III, 19740.

¹ That the storage of grain is of very great antiquity at Lagash, is shown by the elaborate storehouse constructed by Ur-Nina, something like a century and a half before the time of our period. Cf. Heuzey, *Une ville royale chaldéenne*, p. 9 ff., and L. W. King, *History of Sumer and Akkad*, p. 92 ff.

IX, 13657, and CT, X, 14315, DIM-KU, CT, X, 21355, EZIN-DUMU-ZI, CT, VII, 18422, MU-ŠU-UL, CT, VII, 18395, AMAR-A-A-SI, CT, VII, 18409, ŠE-KIN-KUD, CT, VII, 13166, DIR-ŠE-KIN-KUD, CT, X, 12235), the documents from the dynasty of Ur show that GAN-MAŠ saw the opening of more accounts than any other month. This fact had, no doubt, a natural cause in the fact that the grain was then threshed and ready for market, and confirms us in the belief that the month April-May was the "Month of storehouse accounts," ITU KARU-DUB-BA-A.

I therefore regard it as the early name for that month, which by the time of Sargon was displaced by the name GAN-MAŠ, "Month of the division of the fields,"—a name which probably refers to the repair of the canals for the irrigation which began in the next month.

As the next month we are, I think, compelled by the documents of the period of the dynasty of Ur to place ITU GUD-RA-NE-MA-A¹, "Month the faithful oxen go out"—a month found in DP. 143 and RTC. 32². The documents of the period

¹ Genouillac (p. xix, n. 8) reads the name ITU-ĦAR-RA-NE-ŠAR-A on the basis of a remark of Thureau-Dangin in ZA, XVI, 345, n. 1—a remark based on the writing of the month name in RU, 222, a tablet of the period of Ur. This writing also occurs in the Ur tablet published in HLC, II, pl. 75 although it is not certain in either case that the first sign is to be read ĦAR instead of GUD. A copy of the month name quoted from an unpublished tablet by Thureau-Dangin. *Inventaire des tablettes de Telloh*, p. 9, where the name is spelled GUD-RA-NE-MU-MU, shows that in the Ur period the name was pronounced Gudranemumu. Thureau-Dangin himself has abandoned the reading ĦAR for the first syllable. ŠAR has the value MU when it means "to sing" (B. 4347) and "to shine" (B. 4346), but the value MA when it means "to go out" (B. 4302). That it had the value MA in our period the phonetic complement A shows. The MU of the Ur period arose, I believe, from phonetic deflection.

The value RA attaches to the sign DU when the latter means "go", "walk" (B. 4871) or "be firm", "faithful" (B. 4884). We might accordingly read "the walking oxen" instead of "the faithful oxen".

The value ĦAR for GUD is attested only in III R, 68, 64 a—a late syllabary. It may have arisen from the assimilation of *d* to the following *r* in this month name and from the softening of the initial palatal. It is quite uncertain whether GUD was pronounced ĦAR as early as the Ur period.

² In RTC, 32, the name is ITU GUD-RA-NE-MA-A-^aNINA-KA, "Month the faithful (or walking) oxen go out for Nina". It seems

of Ur show conclusively that the month followed GAN-MAŠ. For example HLC, 53 (Pt, II, pl. 72) reads ITU GUD-RA-NE-MU-MU ITU EZIN-^aNE ŠU-RA (Month Gudranemumu to month of the Feast of Neshu), which shows that Gudranemumu preceded Neshu. HLC, 81 (Pt, I, Pl. 33) reads ITU GAN-MAŠ-TA [ITU] EZEN-^aNE-ŠU-KU [ITU] III^{kam}, (from the month Ganmash to the month of the feast of Neshu, three months). Putting the two statements together it follows that for that period Gudranemumu followed Ganmash. HLC, No. 72 (Pt, II, Pl. 81) shows it in another way. We read ITU ŠE-IL-LA-TA ITU GUD-RA-NE-MU-MU-KU... III^{kam}. (from the month Šeilla to the month Gudranemumu... three Months) from which it follows that Gudranemumu was the third month. So far as I can see there is no good reason for supposing that the months were not in the same order in the period of Lugalanda.

The oxen went to the fields to work at the irrigating machines, as is shown for example in the Neo-Babylonian text published in BE, X, 44 and translated by Clay, *Light on the Old Testament from Babel*, 421. The month May-June occurred at the time when the combined flow of the Tigris and Euphrates rivers was at its height, and it strikes one as strange that oxen for irrigating purposes should have been 'so extensively employed then as to cause a month to be named from the fact. It is this which leads Genouillac to place this month in autumn, Sept.-Oct., when the rivers were subsiding. It seems, however, a violent proceeding to suppose that the month was transferred a third of a year between the two periods. It is quite possible that the name is equally appropriate where it stands.¹ It is quite probable that summer crops and orchards stood beyond the range of the overflow of the rivers and needed the aid of irrigation. It was customary, apparently, to begin such irrigation at this time. In a later list of months (V R, 43), a transformation of this name occurs as the name of the second month (April-May, see ll. 3—8 where the name ITU GUD-SI-DA occurs). Prob-

natural to infer from this that the oxen were laboring on the crop which was harvested for the DIM-eating festival of Nina. This would place the month where we have placed it above.

¹ It is not certain that they went to work at the irrigating machines. They may have gone to plough for the autumn crop.

ably this use of the ox in a month-name, however, had in this list an astronomical import and was connected with the second month to correspond with the Bull sign of the zodiac. It does not indicate that the ox-laboring month of the time of Lugalanda was the second instead of the third.

The one document dated in this month is a list of quantities of grain and fishes.

The next month was called by the same name that it bore at the time of the dynasty of Ur, ITU EZIN-^aNE-ŠU, "Month of the Feast of Neshu." Genouillac makes this the month Oct.-Nov., apparently because many tablets dated in the month designate quantities of seed for various fields. It is clear, however, from the evidence presented above, that the month was the fourth month or June-July in the time of the dynasty of Ur, and it seems gratuitous to suppose that earlier it came at a different time of year. The distribution of seed grains in tablets of the Ur period dated in this month may well have been for the crop which was to be gathered in October, or it may have been customary to have the distribution well out of the way before autumn. Two documents in the Lugalanda period are dated in this month, Ru, 29—a list of supplies—and RTC, 53—a pay roll.

The next month was, we believe, ITU EZIN-DIM-KÙ-^aNIN-GIR-SU, "Month of the DIM-eating Feast of Ningirsu," so called in Ru, 60, 218, DP, 117, TSA, 32, 48, and RTC, 34, but also called in A, 8, and Mo. 1457 and 1480, simply ITU EZIN-DIM-KÙ, "Month of the DIM-eating feast." Our reasons for distinguishing this feast from the DIM-eating feast of Nina have already been given. Our reason for placing it here is that A, 83 has a passage which reads ITU DIM-KÙ-ZI-TA ITU EZIN BA-U-KU ITU 4^{kam}. (from the month DIM-KÙ to the month Ezin-Bau, four months) which shows that at the time of the dynasty of Ur two months intervened between DIM-KÙ and EZIN-^aBA-U. Now the month list in TCI, 77 begins with ITU-^aDUMU-ZI, then comes ITU EZIN-^aDUN-GI, then, ITU EZIN-^aBA-U. Combining these two passages it follows that at the time of the dominance of Ur the feast of DIM-KÙ came next before the month of the feast of Tammuz. As we shall show below that the Babylonian year at the time of Urkagnia closed with

a month which was in reality the month of the feast of Tammuz, we place the month DIM-KÛ, or the DIM-eating festival of Ningursu, here in July-Aug. It seems fair to assume that, although the two months had been pushed forward a month by the time of Dungi, that they would retain the same order. From the analogy of the names of the month of the DIM-eating feast of Nina already treated, we are led to regard the name ITU EZIN-ŠE-KÛ-^aNIN-GIR-SU, "Month of the grain-eating feast of Ningursu", as a variant name of this month. Ru, 197, 257, and RTC, 67, are dated in it.

The tablets which bear this date treat the following topics:—Ru, 60 is a list of provisions for asses and men, Ru, 218, a list of provisions, DP, 117, a summary pay roll, while TSA, 48 and RTC, 34 are records of quantities of fishes, A, 8 is a receipt for salt. TSA, 32, a list of oxen and cows. Ru, 197, and RTC, 67, lists of supplies, and Ru, 257, quantities of oil. The business which appears here is business which was carried on throughout the year. While not characteristic of any one month, it is not inappropriate to July-Aug. One text, Ru, 2, presents what is, I believe, a variant name for this month, and the only astronomical name which appears in these texts. The tablet—a list of provisions for temple servants—bears the date ITC MUL-BABBAR-SAG-E-TA-ŠUB-A-A, the "Month the star Babbar lays down its head," or "abandons its leadership." BABBAR means "bright," "white," and is the well known ideogram for the sun, but in the later Babylonian astronomy was a name for the planet Jupiter.¹ Babylonian astronomy as such was, however, the accumulation of many centuries of observation, developing, as Kugler² has shown, at a relatively late date. At the early time of which we are speaking BABBAR, "the white star," might have been equally well applied to any other star equally bright. The following considerations lead me to believe that in the month-name before us Sirius, not Jupiter, is intended.

1. Sirius, the brightest of the fixed stars, is about equally bright with Jupiter, and it comes about each year with a regularity with which Jupiter does not. BABBAR would be a very natural name for a primitive folk to apply to it, and in

¹ See Jensen, *Kosmologie*, 125 ff.

² *Sternkunde und Sterndienst in Babel*, Münster in Westfalen, 1907.

naming a month they would be far more likely to name it for a star which they had observed came regularly in that month than for a planet which wanders about from month to month.

2. At the time of the dynasty of Ur there is evidence that a month was sometimes named after Sirius. In RTC, 180, the name ITU LIG, "Month of the dog" occurs, and the tablets, HLC, Pt. II, No. 2 (Pl. 52) RTC, 283 and 286 are dated in it. In II R, 43, 63a we find a star name MUL LIG ⁴BABBAR, (or if read Semitic, *Kakkabu Kalbu* ⁴*Samaš*, i. e. the star "dog of the sun"). This star is recognized by Kugler and others as a name for Sirius.¹ Now in a text of the period of Ur (RTC, 276), this month is expressed thus: ITU LIG-BA-BAD, the "Month the dog dies" (cf. Br. 1517). This is, I take it, a reference to what astronomers call the "heliac rising" of the dog star. The sun approaches more and more closely to a star until finally it rises so nearly simultaneously with the sun that it cannot be seen. The last time it can be seen is called its "heliac rising." When the star disappeared in the rays of the rising sun it might naturally be described as the "month the dog dies." and an earlier age might as naturally describe it as the "month the bright star abandons its leadership." The two descriptions appear to refer to the same phenomenon. Kugler, (*op. cit.* p. 234), reckons that the heliac rising of Sirins about 700 B. C. was, for the latitude of Nineveh, July 25th. Of course for Lagash it would be slightly earlier. If these names, then, refer to Sirins they would refer to an event about coincident with the beginning of the month July-Aug.

3. Another reason for thinking that Sirins would first attract the attention of the Babylonians is that it attracted the attention of the early Egyptians, and gave them the foundation of their calendar. This calendar was adopted, Meyer² and Breasted³ hold, about 4240 B. C. If the brightest of the fixed stars could thus attract the attention of one early people, it could easily that of another.

If the months DIM-KU and LIG (or BABBAR-SAG-E-

¹ See Kugler, *op. cit.*, 230 and 273 also, Brown, *Primitive Constellations*, I, 277 ff.

² Cf. Meyer, *Geschichte des Altertums*, 2te Aufl. p. 101.

³ *Ancient Records*, I, 30. and *History of Egypt*, 14.

TA-ŠUB-A-A) were, as we have supposed, originally the same, they had ceased to be so by the time of the dynasty of Ur, for RTC, 180 has the names on two successive lines as two different months. It must be borne in mind, however, that by that time considerable displacement in month names had taken place. A month ŠU-KUL had been introduced before DIM-KU, Dungi had appropriated a month, and various slight changes had occurred.

The next month in the year was in the Ur period sacred to Tammuz and was called ITU EZIN-^dDUMU-ZI (cf. TCI, 77). Tammuz was closely associated with the goddess Ishtar, and in the list in V R, 43 this month is called ITU KIN-^dININI, "Month of the mission of Ishtar"—referring, no doubt, to the myth of the descent of the goddess to the lower world. According to the myth she went to the lower world because Tammuz was dead, and the feast of Tammuz was accompanied with wailing for the death of the god. While the name Tammuz (DUMU-ZI) has not yet been found in a month name of the Lugalanda period, it is probable that the month is alluded to under three different names. One of these is ITU EZIN-^dLUGAL-ERIM, "Month of the feast of the god King-of-Erim." Two documents are thus dated: Ru, 202 and RTC, 59. I contended some years ago¹ that Lugal-Erim was a masculinized Ishtar. That he was either that or Tammuz himself is altogether probable, for NA-NA or Ishtar was the goddess of Erim. This month is not, then, to be placed in the winter as Genouillac does, but is to be recognized as the month of the Tammuz festival, Aug.-Sept.

What I regard as a variant name of the same month occurs in Ru, 313, where we read ITU GAL-ŠAG-GA, "Month of the man of favor" (possibly to be rendered "Month of the man of the palm tree"). The primitive Tammuz was associated with the palm tree,² and the closing lines of "Ishtar's Descent" (Rev. 47--49) show that the epithet "man of favor" would not be inappropriate to Tammuz. Probably, therefore, we have here a reference under another epithet to the same god, and through him to the same month. As the tablet records a

¹ *Semitic Origins*, pp. 183, 187.

² See *Semitic Origins*, 86 ff.

payment of money by a man of Elam, the subject matter does not help us in determining the time of year.

Still another variant I would connect, though with less confidence, with the same month. This occurs in Ru. 227 and reads ITU GAL-UNUG^k-GA, "Month of the man of Eridu." The tablet is a list of skins presented by a NU-BANDA, officer of E-NAM-DUMU, or the "Temple of Sonship." Is it fanciful to see in DUMU here the same element as the DUMU in ^aDUMU-ZI? If it is not, this tablet is connected with a temple of Tammuz.

The writer showed some years ago that the religion of at least one of the cities of which Lagash was composed was connected with Eridu,¹ and that there was a sacred palm tree at Eridu.² Combining these facts with the previous epithet, we gain some probability that we have here another reference to the month of Tammuz.

We have now completed the circuit of twelve months, but we have in the tablets of our period one intercalary month. It is the month in which DP. 99 is dated, and is expressed ITU GAL-LA-A, "Appointed month" (cf. Br. 2253). GAL is the ideogram by which the appointment of an intercalary month was expressed in the period of the kings of Ur, see CT, III, 18343, iii, 45, vii, 40, ix, 12, 49, and xvi, 45. There can be no doubt, therefore, of its meaning here. The tablet records a list of cows and oxen under a NU-BANDA officer.

While the above arrangement of the months is necessarily in part tentative, we have endeavored to utilize all available information, cuneiform, agricultural, geographical, religious and astronomical, in making it. It does not, as does that of Genouillac, presuppose the transfer of month names half way around the year before the time of the dynasty of Ur. Such changes of the position of month names by a month or two before that period as we have pre-supposed are made credible in part by the introduction of new month names, in part by the imperfection of the year, which had to be adjusted by intercalary months, and in part by the loss of the original significance of certain names as they became abbreviated.

We may tabulate our results as follows:

¹ *Semitic Origins*, 196.

² *Ibid*, 197.

First month, Sept.-Oct.	ITU EZIN- ^a BA-U
Second month, Oct.-Nov.	{ ITU EZIN-DIM-KÙ- ^a NINA
	{ ITU EZIN-ŠE-KÙ- ^a NINA
	{ ITU EZIN-AB-UD-DU
Third month, Nov.-Dec. (?)	ITU GAR-KA-ID-KA
Fourth month, Dec.-Jan. (?)	ITU ŠI-GAR-MA
Fifth month, Jan.-Feb.	{ ITU UZ-NE-GU-RA-A
	{ ITU AMAR-A-A-SIG-GA
Sixth month, Feb.-March,	{ ITU AMAR-A-A-SI-DA
	{ ITU ŠE-KIN-KUD
Seventh month, March-April,	{ ITU AMA-UDU-TUK
	{ ITU UDU-ŠU-ŠE-A-IL- ^a NINA
	{ ITU UDU-ŠE-A-IL-LA
	{ ITU UDU-ŠU-ŠE-A-KÙ
	{ ITU UDU-ŠU-ŠE-A- ^a NINA
	{ ITU UDU-ŠU-ŠE-A- ^a NIN-
	{ GIR-SU
	{ ITU ŠE-GAR-UDU
	{ ITU AN-TA-GAR-RA-A
	{ ITU MAL-UDU-UR
Eighth month, April-May,	{ ITU MAL-UR
	{ ITU SIG-BA
	{ ITU SIG- ^a BA-U-E-TA-GAR-
	{ RA-A
Ninth month, May-June,	{ ITU KARU-DUB-BA-A
	{ ITU KARU-IMI-A-TA
	{ ITU ŠI-NAM-DUB-NI-BA-
Tenth month, June-July,	{ DUR-BA-A
	{ ITU GUD-RA-NE-MA-A
Eleventh month, July-Aug.,	{ ITU GUD-RA-NE-MA-A-
	{ ^a NINA
	{ ITU EZIN- ^a NE-ŠU
	{ ITU EZIN-DIM-KÙ- ^a NIN-
	{ GIR-SU
	{ ITU EZIN-ŠE-KÙ- ^a NIN-GIR-
	{ SU
	{ ITU EZIN-DIM-KÙ
	{ ITU MUL-BABBAR-SAG-E-
	{ TA-ŠUB-A-A

	{ ITU EZIN- ^d LUGAL-ERIM
Twelfth month, Aug.-Sept.. (?)	{ ITU GAL-ŠAG-GA
	{ ITU GAL-UNUG ^{ki} -GA
Intercalary month.	ITU GÀL-LA-A ¹

¹ A study of the month names in this, the earliest list of Babylonian months known to us, impresses one as a strong argument against the astral theory, which the pan-Babylonians make the basis of their work. Of thirty six month-names, but one is astral. One is the name of the intercalary month; one has to do with the sea or the rivers; while all the rest have to do with agricultural occupations or agricultural festivals. The predominant influence of the heavens, which the pan-Babylonians postulate, is entirely lacking.

Additional Note.

In connection with the remarks about the importance of sheep-shearing in ancient Lagash made above on p. 261, it should be noted that Ur-kagina in Cone B (Sarzec, *Découvertes*, p. LI) bears witness to the importance of this operation. In col. ii, 4-6 he says MAL-URU-UR URU-AZAG-GA-KA-NI MU-NA-RU, "The sheep-shearing house of Uruazagga he built." This implies that sheep-shearing was a kind of public event, and would account for the naming of a month from it.

Some Early Amulets from Palestine.—By JAMES A. MONTGOMERY, Assistant Professor in the University of Pennsylvania.

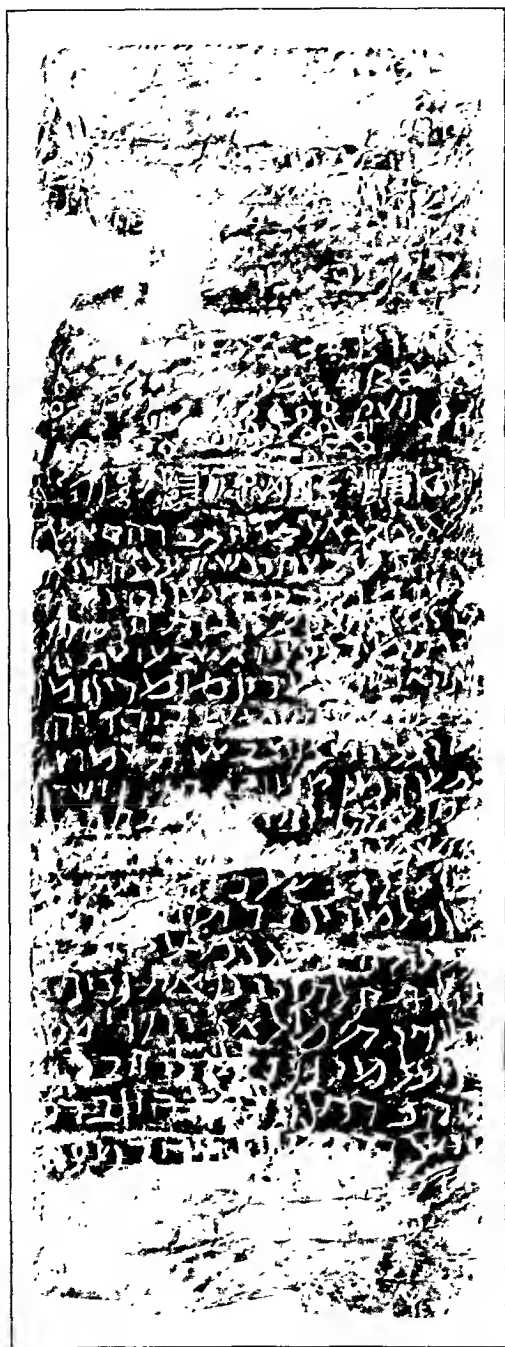
THE following inscriptions are in the possession of Mrs. Henry Draper of New York and the New York Public Library. Dr. Billings, Librarian of the latter institution, placed some of the photographs in the hands of Prof. W. Max Müller, who generously handed them over to me; and subsequently Dr. Billings and Mrs. Draper allowed me most liberally full access to the originals, along with permission to publish them. But the original inscriptions are so minute that any study of them has been made on the photographic reproductions, which fortunately magnified and rendered more distinct the fine and worn characters of the originals.

The originals were once all in the possession of Mrs. Draper, who gave most of them to the New York Public Library. The following account of them is given in the *Bulletin* of that Library, vol. XII (1908), p. 5, as follows: "Three Hebrew amulets of silver and two of gold, in silver and glass frames, one of the gold amulets having attached the gold cylinder case in which it was worn, all having been found at Irbid [in the Hauran in 1853] and belonging in date to about the second to the fifth Centuries, A.D."

The discoverer of the inscriptions is a dealer in oriental antiquities in New York City, and from him I obtained the following information:

"The amulets Dr. Billings sent you to translate were found in tombs excavated under my personal supervision at Irbid in the Hauran, Syria. Some of them were found last summer [1909] and some two and three years ago.¹ They were worn

¹ This is discrepant with the date given in the *Bulletin*. The writer then alludes to a long inscription of similar character, (but evidently late) now in possession of Messrs. Tiffany & Co., New York, which has been partly translated by Dr. William Hayes Ward.



in cases of gold (Mrs. Draper has three or four of the gold cases), sometimes in bone cases."

Irbid lies east of the southern end of the Lake of Galilee, just west of the Haj route, and is now an important town.¹ As indicated above, the inscriptions are written on small pieces of metal foil, the largest of them being less than $4 \times 1\frac{1}{2}$ inches in size, and were folded in gold or bone capsules. The minuteness of the script appears upon observing that one of the inscriptions (A) contains 32 lines, and another which is still smaller, 42 lines.

A.

Inscription of 32 lines on silver foil, in possession of the New York Public Library; $3\frac{3}{4} \times 1\frac{2}{3}$ inches. After line 9 follow several rows of conventional round figures, with some characters which recall the Greek alphabet; then a line of larger figures mostly rectilinear. One figure is a cross with a small circle at each end. The circles probably indicate the magician's seal; compare the use of the circle in the incantation bowls.

Text.

- 1 ובחטרה דמשה ובציצה דאהרן
- 2 כהנה רבה ובקוקתה דשלמה וב[מנ]
- 3 גה דדוד ובקופתה דמרכה אפ[ר]שת
- 4 לקלה אני יהוה ומחדתא ע. . .
- 5 . . תהום בנאבת שהפר שמ[י]ה
- 6 [מ]ן שמנת ובה דמרין כרתה ד[שהפר]
- 7 ועולה דבמעיה מן יומי עלם
- 8 ועד ולעלם אמן אמן סלה
- 9 . . . מ. נ. א. א. צח. . . מ. א.
- 10 אלו תנאל ביה אברהם אבן
- 11 [בחת]ם טבעיה ושמע ללחשי.
- 12 . לשם מתין דקומו עולם ועד גז
- 13 שיה דתפק את נרת הו ש. . .
- 14 [ו]ית מבלעיה אשבעתיה זה
- 15 שה אבי תגערן מן מרין ומן
- 16 עולה דבמעיה . . ביהויה

¹ See Baedeker, *Palästina u. Syrien* ⁵ p. 185; Merrill, *East of the Jordan*, p. 293. Extensive ruins exist here and the place has been identified with Arbela.

17 מן דגלה יהו צבאות שמה
 18 אמן ומן מרין ברתה דש דה
 19 ומן עולה דיהא בי שתה הדה
 20 בשמה דאלהא רבא [א]
 21 מן הללויה לעד אמן סל[ה]
 22 שלם למרין ברתה דש דה
 23 ולעולה דלגו מעיה מן
 24 לילית קלתה דבנאת ... ש
 25 מריה מלאך יהו ישמר
 26 ה לעלמין הללו ליה בנ[בת]
 27 שהפר דין ולמרין ברת
 28 ה ש דה ולעולה דבמעיה
 29
 30 [ולעולה] דבמעיה בנויתה
 31 .. תה ומן מרין ברת שהפ
 32 [ר] אמן [הללויה] סלה

Translation.

1. And now with the wand of Moses and the shining-plate of Aaron
2. the high priest, and with the seal of Solomon, and with [the shield]
3. of David, and with the mitre of the chief priest, have I pronounced (?)
4. [the word: I am YHWH, and repeatedly [have I exer-
5. cised them on behalf of Šahpur, his name.
6. of (?) ŠMNT, and for Marian his daughter
7. and the unborn-child in her bowels, from the days [of ever]
8. and aye and forever. Amen, Amen. Selah.
9. ? ? ?
10. Oh, intercede in behalf of him, Abraham our father.
11. With a seal (?) stamp him. And hear my prayer
12. on account of the dead: "Rise ye forever and ever," (?) that his so-
13. ul thou bring forth. Do thou drive out that ... ?)
14. and his devourer I have exorcised. And n-
15. ow, my father, scold them away from Marian and from
16. the unborn-child in her bowels, by Yahweh (?),
17. who has been (so) revealed—Yahû Sebaoth is his name,
18. Amen; and from this Marian daughter of Š,
19. and from the unborn-child which shall be this year.

20. In the name of the great God, A-
 21. men, Halleluia, Forever, Amen, Selah.
 22. Peace to this Marian daughter of Š.
 23. and to the unborn-child which is in her bowels, from
 24. the lilith of her canopy. . . . She-
 25. mariah[(?)] angel of Yahû protect (?)
 26. her for ages. Hallelu le-Yah, on behalf of
 27. this Šahpur and for this Marian daughter
 28. of Š. and for the unborn-child in her bowels
 29. ? ? ?
 30. [and for the unborn-child] in her bowels in her body
 31. . . . and from Marian daughter of Šahp-
 32. ur. Amen, [Halleluia], Selah.

Notes.

Line 1. The sorcerer claims to be armed with the full magical equipment of the magicians of yore.¹ חסר is the Targumic translation of the biblical מטה of Moses (e. g. *Targ. Onk.* to Ex. 42). The ציצה is the biblical ציץ, the plate of gold on the high priest's mitre, e. g. Lev. 89.

Line 2. David's magical perquisite was his shield, and so I restore at the end of this and the beginning of the following line, מננה. This is probably the earliest literary reference to that magical element: see *JQR.* XIV, p. 111, for an early (3d century?) representation of it.

Line 3. The term indicating the priest's property I conjectured to be the mitre, and following a suggestion of Professor Jastrow, comparing the Biblical כובע, קובע, "helmet," I suppose that קופתה refers to a high head-dress. The theme KB, KP, &c. appears in various forms, in the sense, "heap up, be gibbous," &c. Compare also the root נבע, with its derivative מנבעות, "turban" of the ordinary priest, and the Syriac קפא, "heap up." The latter root illustrates the פ in our word.

The מרובה is the high priest of the second temple (מריבה), when no anointing was practised, so called because of his

¹ Cf. the Greek magical papyri, e. g. Wessely, *Griechische Zauberpapyrus*, *Wiener Denkschriften* XXXVI, 2, p. 129, l. 109ff: "I am Moses thy prophet to whom thou gavest thy mysteries."

² The *Oxford Lexicon* lists these words alphabetically; but they should appear under כבע and קבע.

many garments.¹ The last word in the line I conjecturally restore to אפרשת, Afel; in the sense "pronounce" the word is generally used in the Pael, but the Afel appears as variant in the ancient Bamberger Codex of *Targum Onkelos* to Lev. 272, Num. 62.²

Line 4. אני is fairly certain. מחרתא I take to be the fem. of the Pael ppl. used adverbially. Verbs may be supposed at the end of the line and the beginning of the next (the latter with the pronominal suffix הוּם), which would express the operation of the magical apparatus.

Line 5. בנאבת (with pleonastic א) is parallel to the Jewish Aramaic אַנְבּ, "עַל גְּבִי, עַל גְּבִי, "on account of," with feminine pl. ending instead of the masculine.³ It is resumed with ב in the next line, and is probably to be read in l. 26, being resumed there with ל. שהפר is a unique and early spelling of the famous Persian name Šahpuhre, appearing in the Semitic dialects as Šabor. The first great king of this name flourished in the third century, but the name was an old one in Persia.⁴

Line 6. בן שמנת: the missing latter may be ב or מ. We should expect the parent's, especially the mother's name to be mentioned; but the Aramaic would require בר, unless we may suppose that the Hebrew בן has persisted. שמנת would be a good feminine name, i. e. "fat," or possibly שְׁמֵנַת, "Octavia." If מן be read, ש' is the name of a place. מרין is the Hebrew מרים, the נ is unique. It may be a local dialectic form; cf. עמרן and עמרם. A similar prayer for the unborn child, לעולא ולבאמנא, appears in one of the (unpublished) Mandaic incantation bowls in the University of Pennsylvania Museum.

Line 10. אלו = if the first character is correctly read. the biblical לו and Targumic אֱלֹהֵי. The following verb is the biblical and Rabbinic נאל; the accompanying preposition ב is peculiar, but is not out of place with a verb of touch. This prayer to Father Abraham is unique, although the atoning and intercessory power of the Fathers is a prevailing Jewish doctrine.⁵ The form of the prayer recalls the supplication of the rich man in hell to Father Abraham in the parable in

¹ See Yoma 73 a, and Levy, *Neuhebr. u. chald. Wörterbuch*, IV, p. 413.

² See Berliner, *Targ. Onk. ad loc.*

³ For the feminine form cf. the Syriac קרמת = קדם, מסולת = מסול.

⁴ See Justi, *Iran. Namenbuch*, p. 284.

⁵ Weber, *Jüdische Theologie*, pp. 292 ff, 326 ff.

Lu. 16. **אבן** is the probable reading at end of the line, but **אבי** appears in l. 15.

Line 11. **מבעה** is sure, and I restore the preceding word to **התם** at a venture. In magical language Abraham is asked to stamp the dead man as his own. Compare the sealing of the redeemed in Rev. 74, and the comments upon Ezek. 94 in *Shablath* 55 a: "The Holy One said to Gabriel: Go and mark with ink a Taw upon the forehead of the righteous that the angels of destruction, **מלאכי הבלה**, may have no power over them," &c.; and further on: "Taw is the last latter of the Holy One, for R. Hanina said. The seal of the Holy One is **אמת** (truth)." The suffixal form **הי**... is characteristic of Onkelos in the imperative. **לחש** is a common biblical and Rabbinic word for a spell. There is room for a missing character at the end of this line and at the beginning of the next.

Line 12. The particle **ד** introduces the following imperative quotation, as in Syriac. **עולם ועד** is without **ל** as in Ps. 215. Some incantation of magical import is here quoted; cf. the fragment of an early Christian hymn in Eph. 514: "Awake thou that sleepest, and arise from the dead, and the Christ shall give thee light."

Line 13. My restoration **נפשיה דתפק** is possible so far as the remains of the characters are concerned, but the interpretation of the whole passage is not satisfactory. **את** may be the pronoun, while **גרת** may be the Hebrew and Rabbinic **גרש**, supposing an original stem *grš*. The final word would then represent some evil spirit; but it may possibly be **שהפר**, which would alter the interpretation of **גרת**.

Line 14. **מבלעה**: cf. the legend in *Sifre* of the **מלאכים רעים** who await the death of the wicked to tear out his soul,¹ and n. b. Satan's part in disputing over the body of Moses, Jude 9.

Line 15. **תנערקן**: n. b. the jussive without the parengogic **נ**. This verb often appears in the bowl incantations in the quotation of Zech. 32.

Lines 16 f. At the end **יהיה** is most likely to be read; this would be then the expression of the pronunciation of the Tetragrammaton, as preserved in Samaritan tradition,² and

¹ Weber, *op. cit.* p. 339.

² See Montgomery, *JBL* XXV (1906), p. 49.

corresponding to the modern pronunciation Yahwe. This is a unique spelling in Hebrew.¹ In the next line גלה is evident, and doubtless refers to the revelation contained in יהויה; it is probably the passive particle (cf. Biblical Aramaic), and practically equivalent to המפורש,² יהויה being actually the שם המפורש. The letters preceding גלה are uncertain. There follows יהו צבאות, cf. יהו in l. 25. This is exceptional in the magical forms of the Tetragrammaton, and archaic; cf. Assouan Papyri.

Line 18. דש לז: the restoration is made from l. 28.

Line 19. יהא and בי both Targumic; for the latter cf. Targ. Yerush. Num. 22 23. Here the pronoun הרא and in ll. 18, 28 דא. and the masc. דין, l. 27.

Line 24. קלתה or קלתה = canopied-couch, see Jastrow, *Dict. of the Talmud*. Evil spirits lurked especially in roofs, trees, and all kinds of coverings, and were most noxious in proximity of a bed. The latter part of the line is obscure. The last letter in the line may be ש, to make שמריאל = שמריאל, a favorite angel of charms.³ את may be the pronoun of address to the angel.

Line 26. הללו ליה: various perversion of this magical word are found, e. g. in the Greek magical papyri.

Line 28. We expect the particle ד before ש, but there is no room for it (ה is almost certain). I have found cases in the Mandaic bowls from Nippur where after the pronominal suffix ד is omitted, the suffix appearing sufficient to establish the genitive relation. So also in the Assouan papyri; we find the relative particle omitted in the construction "year x of such a king," e. g. Sachau's *Papyrus A*, l. 19, שנת XIII דריהוש. For the abbreviation ש for שהפר cf. Sayce and Cowley, *Assouan Papyri*, E 17, בר ידניה = בר ידניה; also the Talmudic abbreviations.

Line 30. גייתה, the Targumic גייתה, Jastrow, *op. cit.* p. 221a: also found in Ben Sira 41 11.

The charm is made out for the repose of soul of a certain שהפר and for the health of his daughter מרין, who is pregnant. In the latter part, the scribe has not very much to add and monotonously repeats the subjects of his charm. But the first

¹ Perhaps the same pronunciation is also intended in the magical term יהיה, found in the text published by Stübe, *Jüdisch-babylonische Zaubertexte*, l. 15.—P.S. The same form I also find in texts at Pennsylvania.

² See Arnold's discussion in *JBL* XXIV (1905), p. 157 ff.

³ See Schwab, *Vocabulaire de l'angélologie*. s. v.

part of the charm is fresh and original in comparison with the usual stereotyped forms of incantation.

The orthography is marked by absence of vowel letters, e.g. such words as *עוקתה*, *שלמה*, *שהפר*, *עלם*; yet *דויד*, *עולם*, *עולה*. Final *ה* appears instead of *א*, as in early Aramaic, and as in the Samaritan usage; the one exception is *אלהא*, where *א* is used after *ה*. The masculine suffix is written *יה*, to distinguish it from the feminine.

The forms of pronoun, verb, &c., can all be exemplified from the early Palestinian Targums, and the vocabulary is of like character. The noun *קופתה* and the prepositional *בנאבת* are new. *שהפר* is an early and unique spelling.

The script is of the fully formed square type, but certainly early, as reference to Euting's tables in Chwolson. *Corpus inscriptionum hebraicarum* will show. I may specify the long left leg of *ה*, the single form for *נ*—a long perpendicular stroke, the lack of distinction between *ד* and *ר*, and the archaic *פ*. Taking into consideration the language and the spelling, I would assign the inscription to the second or third century after Christ. There may be also noticed the archaic use of continuing words over the line. The inscription would then be the oldest amulet of any length which we possess.

The charm largely consists in conventional Jewish phrases and repetitions. It contains however some novel features. The elaborate introduction, with the self-assertion of the conjurer, is of interest, and so is the union in the one charm of prayers for the dead and the living, and also for the unborn. Unique is the prayer to Abraham. The divine Name is spelled not only *יהוה*, but also, archaically, *יהו*, and *יהויה*, doubtless the phonetic representation of the pronunciation of the Ineffable Name.

B.

Inscription of 40 lines on silver foil, in possession of Mrs. Henry Draper of New York; $3\frac{1}{4} \times 1\frac{3}{8}$ inches. The charm is so obliterated that despite the use of a bromide enlargement I have been able to obtain but little consecutive sense from the inscription, and hence have not thought it worth while to give a reproduction. It appears to be of the same age as A, though the vocalization is very fully carried out, but differs from that in consisting largely of magical formulas. I give the little that is legible.

1. [מן כלה
2. נון]פיה דמ. חיה ומן כלה נופה ד . . .
4. פנעין . . .
5. אמן אמן
7. קדוש קדוש קדוש קדוש קדוש
9. הנן עלי זנה א . . .
10. לכל בשר . . .
11. פלכות יה
15. קדישה יאקירה . . .
16. אהוש אהוש הפיכה הפיכה . . .
17. הוש הוש
18. אהיה אשר אהיה
19. יהיה יהוה יה יהוה הוה . . .
20. אתבש תון
21. שדי ניבור . . .
24. רופיאל יה יהיה . . .
25. הקדוש הנגלה למשה מחיר . . .
26. יהוה ושמו מבורך אהיה אשרן אהיה]
33. פנואל יהוה

Line 9: "Protect this . . ."; n. b. זנה for דנה.

Line 16. אהוש = אחוש, "quickly," and הפיכה "avaunt," terms found in the incantation bowls.

Line 20. NB. אתבש used as a magical formula.

Line 24. רופיאל, a form of רפאל, found in Pognon's, *Coupees de Khouabir*, and in a Syriac bowl in the University of Pennsylvania, as also in Enoch. It stands for Rafael, with the Hebrew ppl. for the first component.

C.

A talisman on bronze foil (size unknown to me as I have not seen the original). in the New York Free Library. The remains of nine lines are visible. The first two lines are almost illegible. To the left are some magical signs, the only discernible one being a cross, whose arms terminate in a circle—the same figure is found in A. The charm is addressed against the evil eye and certain named calamities and demons, and was probably intended to be worn on the person. In my interpretation I have had the assistance in part of a translation made by Mr. S. A. Biniou of New York. The charm is of a character that still survives in Palestine among the Jews; for examples see Hanauer, *Folk-Lore of the Holy Land* (London. n. d.) p. 318ff.



Text.

3. וגופה דניורגיס ברה דפנאטיס מן כל ביש ומן עין [דאבוהי]
4. [ומן] עין דאימה ומן עין דגשין ומן עין דגברין ומן עין דבהול[אתא]
5. [יהוה] צבאות עימנו מיסגב לנו אלוהי יעקוב סלה אמן אמן סלה אמן
6. [יהוה] צבאות אמן . . אל ותדרו ס . . . ת לומא עריה יהוס
7. . . . ומהוש וצער ורות ושיד אמן אמן סלה אמן אמן אמן
8. . . . אל ותדרו . . . יהוה שמרית . . . ה יהוס . . .
9. אמן אמן סלה אמן

Translation.

- [Protect the . . .]
3. and the body of Georgios son of Pagatios from all evil, from the eye of [his father]
 4. and from the eye of his mother and from the eye of women and from the eye of men and from the eye of virgins
 5. [YHWH] Sebaoth is with us, the god of Jacob is our refuge. Selah, Amen, Amen, Selah, Amen.
 6. [YHWH] Sebaoth, Amen . . .
 7. . . . ailment and shame and spirit and demon. Amen, Amen, Selah, Amen, Amen, Amen, . . .
 8. ? . . . ?
 9. . . . Amen, Amen, Selah, Amen.

Notes.

Lines 6 and 8 have evidently some identical words, but both are almost entirely obscure. The last word in each may be יהושע, i. e. a name of salvation. Line 5 is a quotation of Ps. 46 8, 12.

In line 7 מהוש is for מחוש (מיחוש), with equivalence of ה and ח as in the Babylonian incantation bowls. The vocalization is very fully expressed, e. g. in the scriptural quotation, which is written by ear and not from knowledge of the text. Both script and spelling refer this charm to a much later date than A. Georgios is a common name in late Greek and Syriac; Pagatios, or Pagatis, I have not found elsewhere.¹

¹ Professor Gottheil has given a brief account of these amulets in the *Journal asiatique*, X. ix (1907), p. 150.

Graphic Analysis of the Tone-accents of the Siamese Language.—By CORNELIUS BEACH BRADLEY, Professor in the University of California, Berkeley, Cal.

THE so-called "tones" of certain oriental languages of the Chinese type have been not merely stumbling-blocks in the way of the practical learner, but puzzles to the scientific student as well, because of a lingering uncertainty as to the precise quality and definition of each separate tone, and because of the irrational or even misleading nomenclature often applied to them. As to their general nature, indeed, there is substantial agreement: They are pitch-variations corresponding to such inflections of voice as in most languages regularly accompany sentence-stress, and serve to distinguish different kinds of sentences; as, for example, "He has come" (with falling tone indicating simple statement), "He has come?" (with rising tone indicating question), "He has come" (with compound tone indicating incredulity), and so on.¹ In tonal (pitch-accenting) languages, however, these pitch-variations are not used to distinguish between sentences of similar form, but between individual words in other respects similar. In such languages "tones" are elements as inseparable from the enunciation of words as are the vowels and consonants which make up their articulation. Each word in the language, therefore, has its own fixed and inherent "tone," subject only to such variation as may be brought about by varying conditions of emphasis or speed or nervous excitement. The "tones," in short, are pitch-distinctions inherent in words, and necessary to the right apprehension of their content or meaning, rather than applied to words adventitiously and occasionally, as tokens of the modal aspect of sentences in which they occur.² So far

¹ Sweet, *A New English Grammar*, Oxford. 1898, Part II, §§ 1925 ff., pp. 37 ff.

² Wershoven: pp. 8—9; Frankfurter: p. 18; Bastian: p. 360.

all¹ are agreed; and beyond this there is, of course, substantial agreement in the actual practice of all who have really mastered the native speech and accent. But in the various accounts which such persons give of the several "tones," we have all the uncertainty and discrepancy which inevitably attend the attempt to determine phonological matters by reference to the ear and the subjective consciousness alone. The native scholar is here even more helpless than the foreign;—his processes of utterance are wholly instinctive, and therefore more difficult of analysis. As for nomenclature, when the native tells us that a certain tone is "high" or "level," we doubtless have some inkling—though a very inadequate one—of what he means. But when he tells us that this an "entering" and that a "retiring" tone, we are hopelessly at sea. These are terms of pure subjective fancy, and have no directive force whatever for one who does not already know what they are intended to mean. As for the foreign scholar, his "expectant" and "anxious" tones are quite as impossible as any invented by the native.²

In thinking this matter over with reference to the Siamese language, which is one of the tonal group, it occurred to me

¹ The following are some of the more important references on the subject of Siamese tone-accents: John Taylor Jones, *Brief Grammatical Notices of the Siamese Language, with appendices*, Bangkok, 1842; Caswell, *Treatise on the Tones of the Siamese Language* (the manuscript was composed about 1847, finally printed in the *Siam Repository*, vol. II, Bangkok, 1870); D. J. B. Pallegoix, *Grammatica Linguae Thai*, Bangkok, 1850 (this work has been frequently quoted and followed by later writers; a special feature is Pallegoix' attempt to represent the "tones" by musical notation); D. B. Bradley, *Elementary Tables and Lessons in the Siamese Language*, Bangkok, 1875 (this is the date of my copy which is the eighth edition; the book is printed in Siamese throughout); A. Bastian, *Über die siamesischen Laut- und Tonaccente*, in *Monatsberichte der Akademie der Wissenschaften*, Berlin, 1867, pp. 357—386 (in his account of the "tones", the writer, for the most part, follows Caswell); F. J. Wershoven, *Lehrbuch der siamesischen Sprache etc.*, Leipzig, 1891; Samuel J. Smith, *The Principles of Siamese Grammar, Comprising the Substance of Previous Grammars of the Language*, Bangkok, 1889; O. Frankfurter, *Elements of Siamese Grammar, with appendices*, Bangkok, 1900; for an interesting discussion of the origin and nature of pitch-accents see A. Conrady, *Eine Indochinesische Causativ-Denominativ Bildung und ihr Zusammenhang mit den Tonaccenten etc.*, Leipzig, 1896.

² Of course, not all the designations here cited have found their way into authoritative print; nor are all from the Siamese field. For illustration

that since the essential element in all these "tones" is undoubtedly pitch, and since the permanent records of speech made possible by modern mechanism register pitch as wave-length in the tracing, it should be possible to make sure of the facts by actual measurement, and so to end the controversy. Some years ago, therefore, while busy with other points of Siamese phonetics, and making records with Abbé Rousselot's apparatus, for other purposes, I made a series of records of the "tones" as well. I never found time, however, for their proper study and analysis until this last year, when I took them in hand and worked them out, with results which I have plotted on the accompanying chart. The actual operation, however, was by no means as simple as it might seem; and calls, perhaps, for some little explanation, that there may be no misapprehension as to the nature or value of the results. In the first place, since the instrument records *all* sorts of air-pulses caught in its receiver:—the shocks of contact and release, the physical impact of breath, the intricate pattern of resonance-waves peculiar to each different vowel, the varying intensity of utterance shown in the amplitude or swing of the waves, and the harmonic overtones of the particular voice—all these as well as the fundamental pitch of the vibrating chords: and moreover since these are not analyzed out and separately recorded, but are superimposed the one upon the other in a single intricate pattern, precisely as they are in our hearing of them; it becomes important to the success of our investigation that everything else save fundamental pitch should be either eliminated or minimized. It was comparatively easy to exclude some of the disturbing elements by choosing for the experiment

of the wide divergence between standard authorities both in their apprehension and in their designation of the Siamese "tones," the reader may be interested to consult the following list:

<i>Named in the Chart</i>	<i>Rising</i>	<i>Falling</i>	<i>Circumflex</i>	<i>Middle</i>	<i>Depressed</i>
Pallegoix	Aïtus	Demissus	Gravis (<i>sic</i>)	Rectus	Circum- flexus(<i>sic</i>)
Frankfurter					
Wershoven					
Bastian	Steigend	Fallend	Eingehend(<i>sic</i>)	Gleich	Tief
	Ansteigend	Fallend	Rückkehrend	Eben	Niederge- drückt
Siamese					First
Writers	High	Low	Second Accent	Middle	Accent

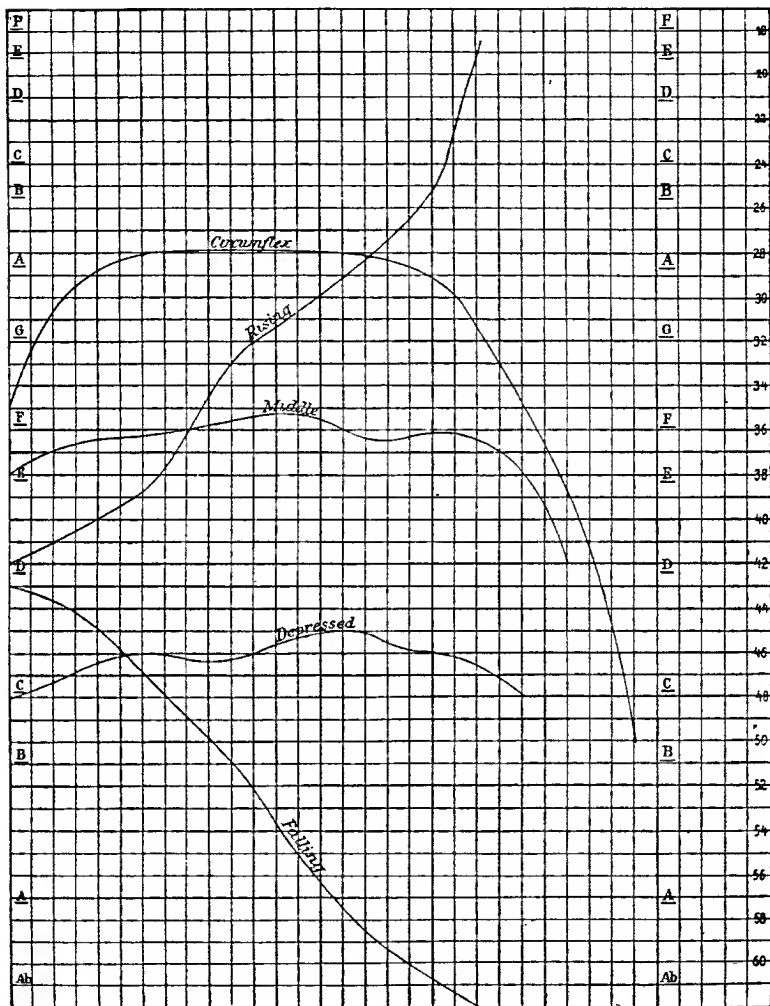
syllables in which they do not appear. But pure vowels alone would not do either, since the conditions of *bona fide* speech must be observed;—that is, genuine words must be used. After various experiments it appeared that the combination of nasal consonant *plus* long open vowel gave the most stable and least confused record; since the nasal, being itself vocalic, passes over without shock into the vowel. I was fortunate also to bethink me of one such combination—the syllable *nā*—actually in use in the five different “tones” of long syllables, making five distinct words of identical articulation—perfect homonyms save for the tonal distinctions in question. The conditions were thus almost ideal for the success of the experiment. Furthermore, for purposes of comparison and control, records were taken of two separate utterances of the series of five words.

In the Rousselot apparatus, a cylinder covered with smoked paper revolves at uniform speed under a needle which vibrates from side to side in response to the air-pulses of the voice. The trace appears as an intricate, crinkly curve, the result of the interference or coincidence of the various elements already described. The first step was to distinguish the waves of fundamental pitch from those extraneous elements, and then to measure them. Thanks to the precautions taken, the longer waves of pitch in most cases emerged unmistakably, as the long ocean swell emerges from the complex of minor waves and ripples which it carries. At some points, however, the wave-crests were more or less confused by interference. In such cases the well-known principle of continuity in movement of pitch was applied to discover the true crest, and the result was checked by comparison with the duplicate record.

The length of the waves as shown in the trace ranged from .035 in. at the upper limit of pitch to .125 in. at the lower. In the middle portion of the register .01 in. makes the difference of a whole tone between F and G. To ensure greater accuracy, as well as to economize effort, the wave-lengths were not measured singly, but in groups of five. Using the quantities so obtained as vertical ordinates of pitch, and arbitrarily assuming equal horizontal spaces of convenient length as ordinates of time,¹ the curve of each of the tones was separately

¹ It was not possible, of course, to give all the syllables precisely equal time in utterance. As shown in the measurements, the time actually varied from about $\frac{1}{2}$ to $\frac{2}{3}$ of a second. In order that difference of

Chart of the Five Tones of Long Syllables in Siamese.



plotted on the chart. I feel sure that the curves as plotted are accurate translations to the eye of those pitch-sequences which the ear recognizes as the five tones of Siamese speech.¹

One striking feature of the result, and one which concerns not Siamese speech alone, is the almost entire absence of straight lines in these figures. This feature seems constant in all speech so far examined. It means, of course, that the speaking voice does not hold the same pitch true even for a very short interval of time. That which the ear recognizes as a monotone, is in fact a sinuous curve oscillating about an average level. The glides also vary in steepness of slope in different portions of their course. All of them show a double or triple curvature. Uniform pitch is by no means practically impossible, as the case of the singer shows; but incessant variation of pitch is doubtless one chief difference between the speaking and the singing voice.

The five "tones" whose pitch-curves have thus been analyzed, are the only ones hitherto recognized in Siamese speech by writers who have dealt with the subject. The list of five, however, is not quite the complete list, as I hope presently to show. But, taking it as it stands, the five "tones" fall obviously into two groups:—*a*) three sweeps or glides, of large movement and definite figure, designated on the chart as rising, falling, and circumflex; and *b*) two tones of small variation and indeterminate figure, the middle and the depressed. I think it has never been pointed out that these two groups stand in entirely different relation to vowel-quantity. The long sweeps and glides require appreciable time not only for their proper

dimension might not stand in the way of proper visual comparison of the figures, the horizontal ordinates in two cases were slightly increased.

¹ In order to give a clearer idea of the scope and relations of these "tones," I have plotted our musical scale on the margins of the chart. It will be observed that the figures group themselves about the line of medium pitch, which in the experiment was approximately F. But this medium pitch, it must be remembered, is no fixed datum. It varies not merely as between individual voices; but in the same voice it rises and falls with every shifting flood or ebb of psychical excitement; and in its movement it carries along with it the whole scheme of tones related to it as their center. Under excitement moreover, and under sentence-stress, the sweep of these curves is far greater than it is in quiet talk or in the unemphatic parts of the sentence. No two records of the same tone are precisely alike in pitch, though the pattern of the curves and their general relation to each other are remarkably constant.

execution by the voice, but also for their proper recognition by the ear. For this, the time of a long vowel or of a diphthong seems absolutely necessary;—a short vowel is ordinarily quite insufficient. But there is one very interesting exception. The nasal sounds *m*, *n*, and *ng* are sonorous, and are capable of rendering pitch as truly as are the vowels. For tonal purposes, therefore, a nasal consonant operates as an extension of the time of a preceding short vowel in the same syllable, precisely as does the final element of a diphthong. The three tonal sweeps, therefore, are heard only in syllables with a long vowel or a diphthong, or else with a short vowel *plus* a nasal consonant.

To all ordinary apprehension the two remaining “tones” on the chart are monotones. Very few students have noticed, or are ready to admit even when it is pointed out, the pronounced final drop in that middle tone. The other is not only lower in pitch but has besides a peculiar element or color, which I believe to be nasal resonance, though I have not yet had opportunity to verify the matter by instrumental test. Since these two are effectively monotones, there is apparently no reason why they should not be found indifferently in syllables either short or long. As a matter of fact they are found in both, though in short-syllables native scholarship recognizes only the depressed “tone.” The other, at the medium pitch of voice, and reached with least effort, we should expect to find most common. But no short Siamese monosyllable, if spoken by itself with conscious attention, ever takes this tone. It is heard only in continuous speech, that is, in the atonic elements of quasi-compounds and phrases, and is doubtless the result of weakening before stress. Thus it is that it has escaped notice altogether.

There is yet one other “tone,” found only in short syllables, which has similarly escaped notice, apparently because it has been carelessly identified either with the rising glide or with the circumflex. The oversight here has escaped detection largely because of the fact that the Siamese scribes have not thought necessary to provide any device to mark this “tone.” This third “tone” found with short vowels is a short high note pitched at about the level of the crest of the circumflex, but lacking both the introductory rise of the circumflex and the long deep drop of its vanish. It does not appear on the chart

for the same reason that the other "tones" of short vowels do not appear:—these facts had not yet been reached when the records were made. When subjected to instrumental analysis—which I hope ere long to be able to give them—the three "tones" of short vowels should appear as short horizontal lines nearly straight, occupying rather less than half the space of the long "tones," and in general position coincident respectively with the crest of the circumflex, with the middle monotone, and with the low monotone. Between the long and short varieties of the last mentioned "tones" there is no need to distinguish, since there is practically no difference in pitch or in quality. But the short high "tone" is so manifestly distinct from any other long or short, that it should be added to the traditional list of five to make the series complete. There would be then six "tones";—three with long vowels only, or with their equivalents; two with vowels either long or short; and one with short vowels only.

It is my expectation soon to apply this same method of instrumental analysis to the "tones" of Chinese speech also. If the method should turn out to be really conclusive as to the nature and the figure of the "tones"—and I see no reason why it should not be so,—it ought to lead to a more rational nomenclature of them in both languages. The names affixed to the curves on the chart, and used in the course of this discussion, are, in the main, those suggested long ago by Rev. Mr. Caswell, and adopted in German form by Dr. Bastian. For the newly discovered sixth "tone," I offer with hesitation the name "elevated," chosen principally because it balances its mate the "depressed." It could not well be called "high" because there are already two other tones which might claim the same designation. But Mr. Caswell's names receive surprising justification from the results of this analysis:—they are really descriptive, as all such names should be. If, as the confusion and the uncertainty which have gathered about this matter are cleared up, Mr. Caswell's nomenclature should once more take its deserved place in general use, it would be only one more testimony to the keenness and accuracy of the now almost forgotten scholar who contributed so much toward the training and equipment of the Prince who afterwards became King Mahā Mongkut, and whose reign ushered in the modern era for Siam.

The "Field of Abram" in the Geographical List of Sheshonk I.—By JAMES HENRY BREASTED. The University of Chicago.

IN a recent fascicle of this journal Professor M. G. Kyle has discussed the above geographical name in the great list accompanying the large historical relief of Sheshonk I at Karnak. Professor Kyle concludes that the identification of the second portion of the name as Abram "scarcely comes within the bounds of possibility." It is important for Old Testament scholars to know whether this conclusion is well grounded or not.

In the first place Professor Kyle is in doubt as to the accuracy of the text which I used in making the identification. He refers to my discussion of the matter in my *Ancient Records of Egypt* (IV, pp. 352—353), where I have clearly indicated that I had photographs of the text (*ibid.*, p. 348, note a). It seems not to be known to Professor Kyle that I first published this identification in 1904 in the *American Journal of Semitic Languages* in an article entitled "The Earliest Occurrence of the Name of Abram" (*AJSL*, Vol. xxi, pp. 22—36).¹ I there (p. 35) included a perfectly clear photograph of the name, in which not a doubtful sign occurs. Moreover the same photograph was later inserted in my *History of Egypt* (p. 530) in connection with a mention of the identification, and this passage, mentioning the identification and referring to the photograph, is particularly referred to by Professor Kyle with page

¹ Even if I attached any consequence to questions of priority in such matters, I would not raise the question with my good friend Spiegelberg who published the same identification the same year. We did so in entire independence. Moreover as I stated (in *AJSL*. xxi. p. 36, n. 24). Erman's papers show that he had noticed it in 1888, but did not publish it, and my friend Schaefer had also noticed it independently. It is of importance to remember in this discussion, that *four scholars have made this identification independently.*

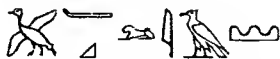
reference. I do not understand how it could have been read without noticing the reference to the photograph in the text, and also to the earlier article in the *American Journal of Semitic Languages* appended in a footnote. In any case there is no reason for uncertainty as to the text which I used, nor the slightest basis for calling it in question.

This term "The Field of Abram" contains three words and although the second and third are Asiatic words foreign to the Egyptian scribe, he has prefixed the Egyptian article "P". To this Professor Kyle objects that it is impossible that the Egyptian scribe should have translated the foreign article into Egyptian, even granting that it was prefixed to a geographical name. I quite agree with him. This unsatisfactory assumption is however not necessary.¹ The first noun in this compound is, as is now commonly recognized the Semitic word חֵקֶל "field", which occurs eight times in this geographical list, showing that it was a current element in the geographical names of Palestine at this time. Nothing is commoner throughout the foreign world at the present day than for some such native geographical term to be used without translation. In the East we constantly say "the tell of A," "the wadi of B," "the ghor of C," and when we were in the cataracts of Nubia we frequently spoke of "the bab of so and so," meaning one of the natural gates in the rock barriers of the cataracts which the natives call a "bab." In the same way חֵקֶל "field" was a current geographical designation in Palestine, but not itself a proper name. The Egyptian took it up and spoke of "the ḥekel of this" and "the ḥekel of that," using the Egyptian article before it. This continued into New Testament times in Palestine. Compare Ἀκελδαμάχ "Field of Blood" or "Field of Sleep." That this is the case is shown conclusively by the parallel use of the well-known Semitic word נָחַל "valley," which also occurs in this list with the Egyptian article "P" before it. Just as *we* say "the Wadi Tumulât," prefixing the English article to the Arabic word "wadi," so the Egyptian said "Pe-ḥekel of —," and "Pe-ḥemek of —," meaning "the field of —" and "the valley of —".

¹ I accepted it formerly (*AJSL*. xxi, p. 32, n. 11), but I have had more experience in the East since then, and the above explanation seems to me conclusive.

Professor Kyle also objects to the interpretation of *חל* as forming a compound with the following word. The existence of such compounds in the list is proven by the example in which *עמק* is the first member, or compounds with *שבילת* "stream" and *נגב* "south country," examples so conclusive that it is fruitless to discuss the question. Moreover Professor Kyle's own proposed explanation (for which, by the way, no demonstration is offered), viz. that this first member means "vicinity," "neighborhood" or "community" demands connection with a second identifying word as much as does the word "field"; or are we to suppose that the Egyptian scribe eight times recorded the name "community" in this list, as the name of eight different towns in Palestine!

As to the transliteration of the word Kyle is mistaken in stating that I "change the final vowel to u," with the implication that this is done in violation of the text. In writing foreign words, and later also in writing words for which he had inherited no current or generally prevalent orthography, the Egyptian scribe usually employed for each consonant a syllabic sign containing two consonants, of which however he read only the first, the second being a very weak consonant, corresponding to Semitic *ʾ*, *i* or *u*. Many if not all of the letters of his alphabet had grown up in this way. Thus *ⲁ* the old writing for *t*, "a loaf of bread," became the letter "*t*"; *Ⲁ* the slope leading to the high desert plateau, as its archaic forms show, the writing for *k* "high," is the letter "*k*"; *Ⲑ* = *r* "mouth" is the letter "*r*".¹ There was nothing new to the scribe therefore in this acrophonetic system which he employed for writing foreign names. We call it "syllabic writing," but it has been widely misunderstood and various futile efforts have been made to interpret the weak second consonant of each sign as a vowel. In view of what Sethe has brought out in his "*Verbum*" and Burchardt's recent study of the foreign words (see below), it is safe to say that such modern efforts have been conclusively shown to be unsuccessful. The Egyptian scribe wrote our word *hkl* thus:







¹ See Sethe, *Das ägyptische Verbum*, I, §§ 73—76, 138—141, 195—201 for a full treatment of such phenomena.








We may slavishly transliterate this: *P'-ḥw-k-rw*², but (disregarding *p'*, the Egyptian article), the reading intended by the Egyptian scribe was *ḥ-k-r(=l)*. The weak *w* in *rw*, which is the correct reading of the lion is the occasion of Kyle's remark that I have "changed the vowel," though of course there are no vowels in the text.¹














Turning now to the more important final word of the group, which three others beside myself have independently identified as "Abram," we find it written as follows:




This is to be transliterated thus *'b'-r²-m* and read *'brm* = אברם. Kyle first objects to the reading of the first sign , as ' or א, because in the writing of ordinary, that is non-foreign words this sign has the value *mr*. Against the reading א he quotes Brugsch who once read it *mr*, though noting that Brugsch also read it א. For these two different readings by Brugsch there is of course a reason, for it was Brugsch himself who discovered and demonstrated the reading א for  in the "syllabic writing." The reading *mr* which Kyle finds in Brugsch's *Geographische Inschriften* belongs to 1857—1880, when this work of Brugsch appeared. Years later he discovered the proper reading of the sign and published it in the *Zeitschrift für Aegyptische Sprache* in 1874 (pp. 142—143). He clearly proves the new reading א, and refers to the old reading *mr* as an "Irrtum den sämtliche Aegyptologen mich selbst nicht ausgeschlossen, begangen haben in Bezug auf die Lesung des Zeichens  in bestimmten Wörternverbindungen." Egyptology is among the sciences which are making rapid progress and Brugsch's old reading of over fifty years ago was one which he himself consigned to the populous limbo of incorrect and obsolete readings. Kyle also quotes the English edition of Erman's *Aegyptische Grammatik* as throwing doubt on the reading of  as א. That edition represents a state of knowledge nearly twenty years old; it is entirely out of date and although I translated it myself, I have reason to hope that it will ere long be superseded by an English edition based on the *third* German edition, now in press. But even in the

¹ On the weak *i'* by which the scribe writes ' at the end, see my note, *Records*, vol. iv, pp. 352—353, note f.

second German edition of 1903 the reading of  as *lw* (= *š*) in "syllabic writing," is inserted without question (p. 217). Moreover, as I know from my notes of Erman's lectures twenty years ago he never questioned Brugsch's reading *š* for  in "syllabic writing." His interrogation point in the first edition of his grammar has nothing to do with its use as *š*, but refers to something quite different. The value *š* which the sign  has in a large number of foreign words, is due to the fact that there arose a confusion in the usage of the Egyptian scribe between the sign  (*lw*) and  (*mr*), which in the lapidary style are very much alike.  and  in "syllabic writing" strictly equal *lw*, or disregarding the weak second consonant it is used for *l*, and this constantly corresponds both in genuine Egyptian words and in the writing of Palestinian words to the Semitic *š*. All the numerous examples will now be found collected in Burchardt's recent and careful compilation of foreign words transliterated in Egyptian hieroglyphics¹ and it would be superfluous to repeat any of them here.





Not only was the reading *š* demonstrated by Brugsch thirty six years ago, but we may go further and show that the reading *mr* in our word is impossible. In the "syllabic writing" the consonants *m* + *r* cannot be indicated by *one sign*! If the scribe finds the consonants *m* + *r* in a foreign word which he is transliterating, he renders them *invariably* by a syllabic sign or signs for each consonant, thus: for *m*:  *m*,  *my*,  *my*,  *my*,  *my* (or  *e*),  *my*,  *my*; for *r*:  *r*,  *yr* (?), or  *rw* (rarely ). Anyone at all incredulous on this point can satisfy himself of the fact in Burchardt's convenient list,² though the fact has been common property among Egyptologists for twenty years. The reading *mr* for  in our word is absolutely impossible.

Finally Professor Kyle objects to the reading of  as *m* and affirms that the second sign, the arm, is entirely ignored in the transliteration "Abram," and further that "the arm is

¹ *Die altkanaanäischen Fremdwörter und Eigennamen im Aegyptischen* von Max Burchardt, Leipzig 1909-1910.

² See especially §§ 56-60 and 77-83.

a strong vowel letter which ought not without special reasons to be ignored in the transliteration." As a matter of fact

 or  with the  is the usual writing for *m* in the "syllabic writing"; and even in Erman's grammar of twenty years ago, in the treatment of the alphabet (§ 35), the meaningless  with initial *m* in *Egyptian* words is duly noted. Its frequent use throughout the "syllabic writing" in the initial, medial or final position is a commonplace of modern knowledge.

It will be seen that none of the objections offered by Prof. Kyle cause any difficulty. I may refer to another interpretation of the name which has occurred to me since first publishing it in 1904. The consonants **אַבְרָם** might be the plural of **אַבְרִי**, and "The Field of Stallions" or "Bulls" would give excellent sense. It lacks however the preciseness which we expect in such a defining genitive, a preciseness which is only obtained by the use of a proper name after such a common word as "field." This is one of the objections also to the interpretation suggested by Maspero years ago, viz. that "*brm*" is **אַבְרָם*** "meadows." To this we may also object that in Hebrew **אַבְרָם** occurs only in compounds with a following noun in the genitive, and that *the plural is never found*. I am therefore still inclined to see in the word the earliest occurrence of the name Abram.

The K-Suffixes of Indo-Iranian. Part I: The K-Suffixes in the Veda and Avesta.—By FRANKLIN EDGERTON.

Chapter V.

Other Ka Suffixes.

The Suffix *ika*. § 92—94.

92. a) *Without Vriddhi*.

1) With meaning “having, possessing” (= 3 *ka*)—(2 words).
túṇḍika (AV.), having a tusk or tooth, < *tunḍa*.

paryāyikā (AV.), having (i. e. composed in) strophes, < *paryāyā*.

2) With meaning “of,” “belonging to” &c. (= 2 *ka*). Adjectival, primarily. (13 words.)

khāṇḍika (B.S.) < *khāṇḍa*.

-yūthika (S.) < *yūthá*.

godānika (S.) < *godāna* (cf.

lalāṭika (S.) < *lalāṭa*.

gāud-, § 94).

-vyomnika (U.) < *vyòman*.

gonānika < *gonāmá*.

śāṇḍika (RV.) < *śāṇḍa*, patronymic.

jyotiṣṭomika (S.) < *jyótiṣṭoma*.

śoḍaṣika (B.) < *śoḍaṣá*; *śoḍa-*

deṣika (U.) < *deṣá*.

ṣika = “connected with the 16-partite Stotra.”

pitṛmedhika (U.) < *pitṛmedha*.

mahāvratika (S.) < *mahāvratá*.

yamika (SV.B.) < *yamá*!

Three other words, which may have either the suffix *ika* or its equivalent 2 *ka*: see § 52.

93. b) *With Vriddhi*. Meaning always = 2 *ka*, “of,” “connected with” &c. Especially common in the Sūtras: infrequent before them. Not one case in RV.—Only two in AV. (*vārṣika*, *vāsantika*).—In all the Saṁhitās and Brāhmaṇas only 16 cases (nearly all in Br.), against 64 found for the first time in Sūtras. The Upaniṣads add 11 which are not found in the other early literature; occurrences are much less common than in the Sūtras.

Double Vriddhi,—i. e. vriddhi of the principal vowels of both parts of a compound primitive—appears in the Veda only three times, to my knowledge: *dārṣapāurnamāsika* (Çāṅkh. Çr. 5. 18. 7) < *darṣapūrnamāsá*; *sārvavāidika* (Kāuṣ. 67) < *sarva-veda*; and *śātkāuṣika* (Kāuṣ.) *śaṣ-koṣa*. Other instances in later language.

94. *Word-list.* Suffix *ika* with Vriddhi (*āgnika* = of or pertaining to Agni, and so forth). (105 words.)

āgnika (S.) < *agnī*.

āgniṣṭomika (B.) < *agnīṣṭomā*.

āgnyādheyika (S.) < *agnyādheya*.

ājāvika (S.) < *ajāvi*.

ādhikārika (S.) < *adhikāra*.

ādhyātmika (U.) < *adhyātmā*.

ādhyāyika (U.) < *adhyāya*.

ādharika (B.S.) < *adhvarā*.

ānumānika (S.) < *anumāna*.

ānuyājika (S.) < *anuyājā*.

āparāhnikā (S.) < *aparāhñā*.

ābhicāranika (S.) < *abhicāraṇa*.

ābhicārika (S.) < *abhicārā*.

ābhiplavika (S.) < *abhiplavā*.

ābhyudayika (S.) < *abhyudaya*.

āvadānika (S.) < *avadāna*.

āvika (S.U.) < *āvi*.

āṣvamedhika (B.S.) < *aṣva-medhā*.

ākāhika (B.S.) < *ekāhā*.

aiṣṭhika (S.U.) < *iṣṭi*.

āuttaravedika (B.) < *uttaravedī*.

āupavasathika (S.) < *upava-sathā*.

kṣāumika (S.) < *kṣumā*.

gāṇḍānika (S.) < *godāna*.

cāturthāhnikā (S.) < *caturthāhan*.

cāturthika (S.) < *caturtha*.

cāturdhākāranika (S.) < *caturdhākāraṇa*.

cāturvinṣika (S.) < *caturvinṣā*.

chāndomika (S.) < *chandomā*.

jyāiṣṭhasāmika (S.) < *jyēṣṭhasāman*.

tādarthika (S.) < *tadārtha*.

trāivarṣika (S.) < *tri-varṣa*.

dākṣiṇāgnika (S.) < *dakṣiṇāgnī*.

dārṣapūrṇamāsika (S.) < *dar-*

ṣapūrṇamāsā (Double Vrid-dhi).

dāṣarātrika (B.S.) < *daṣarātrā*.

dhārmika (U.) < *dhārma*.

nāstika (S.U.) < *na-asti* (cf. *ās-tika*, Cl.).

nāimittika (S.) < *nimitta*.

nāiyamika (S.) < *niyama*.

nāiṣṭhika (S.) < *niṣṭhā*.

nāiṣṭhika (U.) < *niṣṭhā*.

pāñcamāhnikā (S.) < *pañcamāhan*.

pāramārthika (U.) < *paramārtha*.

[*pārṣṭhika* (S.) < *prṣṭhyā*- Suf-fix 2 *ka*—see § 29 a.]

pāunarādheyika (S.) < *puna-rādhēya*.

pāūruṣamedhika (B.) < *puru-ṣamedhā*.

pāurvāhnikā (S.) < *pūrvāhñā*.

prākaranika (S.) < *prakaraṇa*.

prāgāthika (S.) < *pragātha*.

prātinidhika (S.) < *pratinidhi*.

prādeṣika (S.) < *pradeṣa*.

prāyaścittika (S.) < *prāyaścitta*.

brāhmāudānika (S.) *brahmāu-dānā*.

bhāktika (S.) *bhaktī*.

mādhuparkika (S.) < *madhu-parkā*.

yājñika (S.U.) < *yajñā*.

yādrcchika (U.) < *yadrcchā*.

rājasūyika (S.) < *rājasūya*.

lāghavika (S.) < *lāghava*.

lūkika (S.) < *lokā*.

vāyavidyikā (B.) < *vayavidyā*.

vārūṇapraghāsika (S.) < *varu-ṇapraghāsā*.

vārṣaṣatika (S.) < *varṣaṣata*.
vārṣika (AV. +) < *varṣā*.
vāsantika (AV. +) < *vasantā*.
vāikalpika (S.) < *vikalpa*.
vāitānika (S.) < *vitāna*.
vāidika (U.) < *vēda*.
vāiṣeṣika (S.) < *viṣeṣa*.
vāiṣvadevika (S.) < *vāiṣvadevā*.
vrātika (S.) < *vratā*.
ṣākunika (S.) < *ṣakunā*.
ṣāṣvatika (S.) < *ṣāṣvant*.
ṣātkāuṣika (S.) < *ṣaṣ-koṣa*.

(Double Vriddhi.)

ṣaḍahika (S.) < *ṣaḍahā*.
sāṁvatsarika (B.) < *sāṁvatsarā*.
sāṁṣaṁsika (B.) < *sāṁṣaṁsā*.
sāṁṣayika (S.) < *sāṁṣaya*.
sāṁsiddhika (U.) < *sāṁsiddhi*.
sāṁgrāmika (S.) < *sāṁgrāma*.
sāṁghātika (S.) < *sāṁghātā*.
sāttrika (B.S.) < *sattrā*.
sāttvika (U.) < *sattrā*.
sāṁnipātika (S.) < *sāṁnipāta*.
sāptamika (S.) < *saptamī*.
sāptarātrika (B.) < *saptarātrā*.

sāmayācārika (S.) < *samayācāra*.
sāmavāyika (S.) < *samavāya*.
sāmika (S.) < *sāman*. (See § 38.)
sāṁpātika (S.) < *sāṁpāti*.
sāṁpradāyika (U.) < *sāṁpra-*
dāya.

sārvakāmika (S.) < *sarvakāma*
 (as n.).

sārvakālika (S.) < *sarvakāla*.
sārvayañjika (S.) < *sarvayañña*.
sārvavarṇika (S.) < *sarvavarṇa*.
sārvavāidika (S.) < *sarvaveda*.

(Double Vriddhi.)

sāvika (S.) < *savā*.
sāugandhika (B.) < *sugandha*.
sāūtrāmaṇika (B.) < *sāūtrā-*
maṇī.

sāumika (S.) < *sōma*.
stāubhika (S.) < *stobha*.
svābhāvika (S.U.) < *svabhāva*.
svārasāmika (S.) < *svārasāman*.
hāviryajñika (S.) < *haviryajñā*.
hāimantika (VS.TS. +) < *he-*
mantā.

hāutrika (S.) < *hotrā* (or *hōtr*).

The Suffix aka. 95—97.

95. For 1 *aka*, see § 16, where the examples are quoted. (2 words.)

2 *aka*.—Nouns of action from verb stems. Usually neuter; one or two fem. See § 17. (8 words.)

abhiméthikā (ÇBr.), ribald talking, < *abhi-Vmīth*.

-*ācaka* in *ānācaka* (ÇBr.), not eating, fasting (as noun), < *Vāc*.

codaka (KātyÇr.), invitation, direction, < *Vcud*.

jīvikā (U.), manner of life, < *Vjīv*? But cf. *jīvā*, life. Perhaps secondary.

pātaka (S.U.), sin, fall, < *Vpat*? But cf. *pāta*; very likely secondary.

pūraka (U.), "filling" of the lungs, inspiration, < *Vpr*.

prakṣepaka (U.), throwing (noun), < *pra-Vksip*.

recaka (U.), expiration, < *Vric* (cf. *pūraka*).

Cf. also *pravalhikā* < *pravalha*, n., or from *pra-Vvalh*; § 91.

The noun *kumbhaka*, "inflation" (of the breath-passages, i. e. keeping them full of air, a religious exercise) Amṛt.Up. 9 *et alibi*, gets its *-ka* by levelling from the nouns *pūṛaka* and *recaka* (see above), which are found in close juxtaposition to it (they being also religious exercises). *Kumbhaka* is of course formed from the noun *kumbhā* (because the appearance of a person performing the exercise suggested a pot), while the other two are formed by the suffix *aka* from roots.

96. 3 *aka*.—Participial adjectives and nouns of agent. At first only the latter use is found. All the Vedic cases outside the Upaniṣads, except two in the Sūtras, are exclusively used as nouns (of agent), not as adjectives. In the Upaniṣads the two uses are found mingled about as in later Skt.—The only words which appear before the Upaniṣads are:

AV.:—*pīyaka*, n. of a class of demons: "abuser"? *Vpīy*.
kṛttikā, pl. the Pleiades (as a sword); *Vkṛt*. See § 20.

VS.:—*abhikrōṣaka*, reviler, *abhi-Vkruṣ*.
vilāyaka, soother, *vi-Vlā*.

Br.:—*īkṣaka* (QBr.), spectator, *Vīkṣ*.
pariprcchaka (GopBr.), inquirer; *pari-Vprcch*.

and four words quoted in Whitney's Verb-forms as primary derivatives from the Brāhmaṇas, which may belong here: I have not been able to find where they occur. They are:

dhuvaka-Vdhū.

pātaka-Vpaṭ.

lambhaka-Vlāmbh.

sāraka-Vsr.

Sūtras:—*avabhedaka*, "splitter," epithet of headache. *ava-Vbhid*.
upāsaka, servant, *upa-Vās*.
khādaka, eater. *Vkhād*.
prekṣaka, spectator; as adj. deliberating on, *pra-Vīkṣ*.
vināyaka, n. of demons, *vi-Vnā*.
sañjīvaka, animating. *sam-Vjīv*.

The remaining words are all Upaniṣadic, and a majority of them are adjectival (participial) in meaning. There are signs of a tendency for these words to take the meaning of the *causative* of the verb-root from which they are derived; so, e. g., *tāraka* „one who takes across or saves;" *pravartaka* „one who sets in motion." In the Classical language this tendency became very prominent, and the number of such causative words in *-aka* is large, as will be shown in Part II of this book.

97. In this list, which includes all Vedic words in 3 *aka*, the *roots* are listed alphabetically; roots compounded with prepositions are placed under the simple roots. The accent was on the root-syllable regularly. (45 words: 40 different roots.)

<i>añj</i> + <i>vi</i>	<i>vyañjaka</i> .	<i>nī</i> + <i>vi</i>	<i>vināyaka</i> .
<i>aṭ</i>	<i>āṭikī</i> (? n. pr.).	<i>paṭ</i>	<i>pāṭaka</i> (?).
<i>asūy</i>	<i>asūyaka</i> .	<i>pad</i> + <i>ud</i>	<i>utpādaka</i> .
<i>āp</i> + <i>vi</i>	<i>vyāpaka</i> .	<i>pīy</i>	<i>pīyaka</i> .
<i>ās</i> + <i>upa</i>	<i>upāsaka</i> .	<i>prcch</i> + <i>pari</i>	<i>pariprcchaka</i> .
<i>ikṣ</i>	<i>īkṣaka</i> .	<i>bhās</i> + <i>ud</i>	<i>udbhāsaka</i> .
+ <i>pra</i>	<i>prekṣaka</i> .	<i>bhid</i> + <i>ava</i>	<i>avabhedaka</i> .
<i>kṛ</i>	<i>kāraka</i> .	<i>muc</i>	<i>mocaka</i> .
<i>kṛt</i>	<i>kṛttikā</i> (see above,	<i>yac</i>	<i>yācaka</i> .
and also § 20).		<i>yaj</i>	<i>yājaka</i> .
<i>kṛp</i> + <i>sam</i>	<i>samkalpaka</i> .	<i>rudh</i> + <i>ni</i>	<i>nīrodhaka</i> .
<i>kruç</i> + <i>abhi</i>	<i>abhiṅrōçaka</i> .	<i>lambh</i>	<i>lambhaka</i> (?).
<i>khād</i>	<i>khādaka</i> .	<i>lī</i> + <i>vi</i>	<i>vilāyaka</i> .
<i>gras</i> + <i>ud</i>	<i>udgrāsaka</i> .	<i>vac</i>	<i>vācaka</i> .
<i>cint</i>	<i>cintaka</i> .	<i>vṛ</i>	<i>vāraka</i> .
<i>jap</i>	<i>jāpaka</i> .	<i>ṛt</i> + <i>ni</i>	<i>nīvartaka</i> .
<i>jīv</i> + <i>sam</i>	<i>sanjīvaka</i> .	+ <i>pra</i>	<i>pravartaka</i> .
<i>tṛ</i>	<i>tāraka</i> .	+ <i>sam</i>	<i>samvartaka</i> .
<i>dā</i>	<i>dāyaka</i> .	<i>vraj</i> + <i>pari</i>	<i>parivrajaka</i> .
+ <i>pra</i>	<i>pradāyaka</i> .	<i>sādh</i>	<i>sādhaka</i> .
<i>dīp</i> + <i>pari</i>	<i>paridīpaka</i> .	<i>sr</i>	<i>sāraka</i> (?).
<i>dhu</i>	<i>dhuvaka</i> (?).	<i>sev</i>	<i>sevaka</i> .
<i>nī</i>	<i>nāyaka</i> .	<i>hins</i>	<i>hīnsaka</i> .

The Suffix *uka*. §§ 98—99.

98. (For Secondary *uka*, see § 21, where supposed examples are quoted.) *Primary*. Words of present-participle meaning (besides *ā-lambhukā*, see § 24, with gerundival meaning) from verbal roots. Practically limited to the Brāhmaṇa language (see §§ 22—24). Of 71 Vedic words all but four are found in the Brāhmaṇas. These four are:

<i>sānukā</i> (RV.), <i>Vsan̄</i> .	<i>vīkasuka</i> (AV.), <i>vi-Vkas̄</i> .
<i>ṛdhmuka</i> (S.), <i>Vṛdh̄</i> .	<i>lambhuka</i> (U.), <i>Vlambh̄</i> .

The AV. has furthermore three words which are also found in the Brāhmaṇas, viz: *ghātuka* (*Vhān̄*), *a-pramāyuka* (*pra-Vm̄*), *sāmkasuka* (*sam-Vkas̄*). This makes *five* pre-Brāhmanic in-

stances; for the YV. Saṁhitās proper do not contain a single instance, so far as recorded. Following are the 71 Vedic words I have noted, arranged alphabetically under the 57 roots. On the forms of the roots, see § 24. The accent is on the root-syllable, whether the root is simple or compound,—unless *a*-privativ is prefixed, in which case it has the accent. The only exceptions are *sānukā* (RV.), *vi-* and *sām-kasuka* (AV.), which date from the formative period of the suffix; *sānukā* was not felt as *Vsan* + suffix *-uka*, but as an *u*-base from *Vsān* (*sanoti*) + suffix *-ka*.

99. <i>aṣanāya</i>	<i>aṣanāyuka.</i>	<i>naç</i>	<i>nañçuka.</i>
<i>i + abhi</i>	<i>abhyāyuka.</i>	<i>pat + parā</i>	<i>parāpātuka.</i>
<i>+ vi</i>	<i>vyāyuka.</i>	<i>pad + pra</i>	<i>prapāduka.</i>
<i>ṛ</i>	<i>āruka.</i>	<i>pis</i>	<i>pēsuka.</i>
<i>ṛt</i>	<i>ārtuka.</i>	<i>pus</i>	<i>poşuka.</i>
<i>ṛdh</i>	<i>ārdhuka</i>	<i>bandh + ud</i>	<i>udbāndhuka.</i>
	<i>ṛdhnuka.</i>	<i>bhid + vi</i>	<i>viḥhinduka.</i>
<i>+ sam</i>	<i>samārdhuka.</i>	<i>bhū</i>	<i>bhāvuka.</i>
<i>+ ā</i>	<i>ārdhuka.</i>	<i>+ parā</i>	<i>parābhāvuka.</i>
<i>+ vi</i>	<i>vyārdhuka.</i>	<i>bhrañç + pra-</i>	<i>prabhrañçuka.</i>
<i>kam</i>	<i>kāmuka.</i>	<i>mad + ud</i>	<i>unmāduka.</i>
<i>kas + vi</i>	<i>vīkasuka.</i>	<i>man + abhi</i>	<i>abhimānuka.</i>
<i>+ sam</i>	<i>sāmikasuka.</i>	<i>mī + pra</i>	<i>pramāyuka.</i>
<i>kṛ</i>	<i>kāruka.</i>	<i>mūh</i>	<i>mōhuka.</i>
<i>kṛ + prā</i>	<i>prākāruka.</i>	<i>mṛ</i>	<i>māruka.</i>
<i>kram + apa</i>	<i>apakrāmuka.</i>	<i>mṛj + nis</i>	<i>nirmārguka.</i>
<i>+ upa</i>	<i>upakrāmuka.</i>	<i>mṛit + nis</i>	<i>nirmretuka.</i>
<i>kṣudh</i>	<i>kṣódhuka.</i>	<i>yaj</i>	<i>yājuka.</i>
<i>gam + ā</i>	<i>āgāmuka.</i>	<i>ruc</i>	<i>rócuka.</i>
<i>grah</i>	<i>grāhuka.</i>	<i>rudh + apa</i>	<i>aparódhuka.</i>
<i>car + abhy -ava -abhyavacār-</i>		<i>ruh + abhy-ā</i>	<i>abhyārōhuka.</i>
<i>uka in ān-a.</i>		<i>lambh</i>	<i>lambhuka.</i>
<i>cyu + pra</i>	<i>pracyāvuka.</i>	<i>vad + abhi</i>	<i>(an)abhivāduka.</i>
<i>jan</i>	<i>jānukā.</i>	<i>vid (1)</i>	<i>vēduka.</i>
<i>ji</i>	<i>jāyuka.</i>	<i>vid (2)</i>	<i>vēduka.</i>
<i>dañç</i>	<i>dāñçuka.</i>	<i>vṛ</i>	<i>vāruka.</i>
<i>das + upa</i>	<i>upadāsuka.</i>	<i>vṛş</i>	<i>vārşuka.</i>
<i>dah</i>	<i>dāhuka.</i>	<i>veşṭ</i>	<i>vēşṭuka.</i>
<i>+ nis</i>	<i>-nirdāhuka in ā-n.</i>	<i>çuş + ud</i>	<i>ucchōşuka.</i>
<i>nam + upa</i>	<i>upanāmuka.</i>	<i>çṛ + sam</i>	<i>sañçāruka.</i>
<i>naç</i>	<i>nāçukā</i>	<i>sad + apa-ni</i>	<i>apaniśāduka.</i>

<i>san</i>	<i>sānuká.</i>	<i>han</i>	<i>ghátuka.</i>
<i>sthā</i>	<i>sthāyuka.</i>	<i>hṛ</i>	<i>hāruka.</i>
+ <i>upa</i>	<i>upasthāyuka.</i>	+ <i>pra</i>	<i>prahāruka</i>
+ <i>prati</i>	<i>pratisthāyuka</i>	<i>hlād</i>	<i>hlāduka</i>
	in <i>ā-p.</i>	<i>hṛ + vi</i>	<i>vihvāruka.</i>
+ <i>praty-ud</i>	<i>pratyutthā-</i>		
	<i>yuka</i> in <i>a-p.</i>		

The Suffix *ūka*—see § 25, where all quotable examples are given. (3 words.)

The Suffix *īka*. See § 26. (20 words.)

100. a) *Verbal adjectives* or *nouns of agent* from Verbal bases. (*āçarīka*, AV., tearing pains; < $\bar{a}V\check{c}\bar{r}$ in dissyllabic form *çarī*; primary *ka*.)

-rjīka, RV., AV., gleaming; $V\check{r}\bar{j}$ (in *árjuna*, *rjrá*, *rjūti*).

In *āvīr-*, *bhā-*, *gó-rjīka*. That the word ever means “mingled with,” except in a purely secondary way, I do not believe. *gó-rjīka* is commonly rendered “mixed with milk,” but more accurately it means “milk-shining,” „gleaming with milk” (of the soma-mixture).

dūṣīka, AV. n. of demons, “spoilers;” $V\bar{d}uṣ$ (*dūṣ*).

dr̥ṣīkú, TS., beholder, $V\bar{d}r̥ṣ$.

d̥rbhīka, RV., n. of a demon, $V\bar{d}rbh-$ weave, tie.

[*parpharīka*?—RV. 10. 106. 6.—BR. merely quote Sāy.—

“Zerreisser oder Erfüller;” other comm. have various guesses; nothing certain. The whole hymn is late, and purposely mystical and obscure. With reference to *turphārī*, which is closely connected with it, I should suppose that *parpharīka* is a secondary formation to **parpharī*; but it might be primary, from the root of *parpharati* (next verse). Ludwig “zerstreuend,” Grassmann “Gaben austreuend.”]

(*viçarīka*, AV., a disease; primary *ka*—see *āçarīka*. But cf. *viçará*.)

vr̥dhīkú, RV., n. of Indra, “increaser;” $V\bar{v}r̥dh$.

101. *Other Uses.*

b) Gerundive Adjectives from Verbal bases:

iṣīkā (AV. +), “to be shot,” an arrow, $V\bar{i}\check{s}$.

dr̥ṣīka (RV.) “to be seen,” splendid, $V\bar{d}r̥ṣ$.

c) Abstract Nouns from Verbal bases:

dr̥ṣīka, and (once) *-ā* (RV.), appearance, $V\bar{d}r̥ṣ$.

mṛḍīkā, and (deriv.) *mārdīkā* (RV.), favor, mercy, $V\bar{m}\bar{r}\bar{d}$.

d) Secondary nouns from nouns, with mg. of 1 *ka*.
īkṣīkā (AV.), n. of an evil spirit; "bear-like?" < *īkṣa*?
kaçikā (RV.), weasel: < *kāça*, the same or a like animal.
kumbhika (AV.), a sort of demon: perhaps cf. *kumbhā*.

e) Wholly uncertain are the following words (see General Index for what little can be said about them):

<i>ūtika</i>	<i>çarṣikā</i>
<i>kulīkā</i> (<i>pulīkā</i>)	<i>sātika</i>
<i>cupunīkā</i>	<i>sārṇika</i>
<i>parūrīkā</i>	<i>suṣīlīka</i> (for <i>çuṣulūka</i> ?)

The Adverbial Suffix *k*—see § 27, where all quotable examples are given.

The Primary Suffix *ka*. See § 28.

102. Nothing remains after what has been said (§ 28) but to give an alphabetical list of those words which have most the appearance of primary derivatives. Any attempt to assign definite meanings to the suffix, except in a general way as has been done in § 28, would be fruitless. How many of the words here listed are really formed from true "roots" or bases with the suffix *ka*, not from lost adjectives or nouns, is a question that is very difficult to answer.—It will be noted that the words are nearly all ancient, most of them appearing in the RV.—In the case of some it is very doubtful whether the suffix *ka* is really contained in them. When this is the case it will be indicated.

103. *Word list*.—*Primary ka*. (About 30 words.)

ātka (RV.), a garment, Av. *aḍka*.

āçarika (AV.), a disease, "tearing pains," < *ā-Vçr*, in dissyllabic form *çarī*. Cf. *vīçarika*.

āsuka (ĀrṣBr.), n. of a *sāman*, < *ā-Vsū*? Comm. < *asuka*, an alleged n. pr.

ēka (RV. +), one. IE. base *oǵ*.

karkā (AV.), white. ?

kṣvīnkā (RV.) a cert. bird. Prob. onomatopoeic.

jāhakā (TS., VS.), hedgehog. *Vhā*.

nāka (RV.), heaven. Suggested *Vnām*; IE. *n̥m̥* + *ka*. Quite uncertain.

nika (ĀrṣBr.), n. of a *sāman*.—Cf. *ni*?

niškā (RV.), a neck ornament. ? Cf. OHG. *nusca*, OIr. *nasc*.

nihākā (RV.), storm. ?

pāka (RV.), very young; simple &c. Prob. $\sqrt{pā} + ka$, "suckling."
pikā (VS.), a bird. Uhlenbeck compares *pīcus*; very doubtful.
baka (KS.), n. pr. (in Class. Skt., a crane). Prob. non-suffixal *k-*
beṣka, *bāṣka*, *bleṣka*, *meṣka*, *veṣkā*, *vleṣka* (YV. +), a snare.

Perhaps from \sqrt{ve} , *vay-weave*. But Brugm. has a different etymology, assuming *vleṣka* as the orig. form.

bheka (Māitr.Up.), frog. Prob. onomatopoetic.

mūka or *mūkā* (VS.), dumb. Cf. *mūrā*, $\mu\acute{v}-\omega$, Lt. *mūtus*.

-mēka in *sumēka* (RV.), well-established. $\sqrt{mī}$.

yaska (S.), n. pr. ? (*yāskā*, patron.).

rākā (RV.), full-moon. Cf. *rā(i)*?

lēka (TS.), n. of an Āditya. \sqrt{h} , stick, lie,—?

valkā (TS.), tree-bark. Perhaps cf. \sqrt{vr} , cover.

vika (Ārṣ.Br.), n. of a sāman. Cf. *vi*?—Compare *nika*.

viṣarika (AV.), a disease, cf. *āṣarika*; < *vi*- $\sqrt{ṣr}$, in dissyllabic form *ṣarī-*. But cf. *viṣarā*!

vṛkkā (RV.), kidney, for *vṛika*, as Av. *vərədko* shows. Further etym.?

ṣulkā (RV.), price. Uncertain.

ṣūṣka (RV.), dried up. $\sqrt{ṣuṣ}$. Av. *huṣka*.

ḷōka (RV.), sound &c. $\sqrt{ḷru}$

ṣva-kiṣkīn (AV.), of uncertain meaning and etymology.

saṁpuṣka (S.), unground. Mistake for *saṁ-ṣuṣka*?

(*ṣṛkā* (RV.), arrow = Av. *harako*, \sqrt{h} *harac*; non-suffixal *k*).

(*stuka*), child (TĀr.), text probably corrupt.

(*stūkā*, hair-tuft, called by Wh. primary, but see § 42.)

stokā (RV.), drop, \sqrt{stu} , as in *ghṛta-stāvas* (better than the derivation from $\sqrt{ṣcut}$ by metathesis).

sphaṭika (U.), crystal. $\sqrt{sphaṭ}$, burst, only Dhātup; Uhlenbeck compares *spalten*.

-sphākā (AV.) in *pīvah-sphākā*. swelling with fat. $\sqrt{sphā(i)}$.

Chapter VI.

The Suffix in Av., compared with RV.; the Prehistoric Suffix.

Based on list of Av. words in Bartholomae's Wbch.

104. In striking contrast to the fullness and richness shown in the development of the *ka* suffixes in Skt. stands the meager use of them in the most closely related language, Avestan. Not only are the Av. instances very few in number (barely over

50 in Bartholomae), but semantically the conditions are primitive compared with those existing even at quite an early date in the sister language of India. However, if we examine separately the *ka* suffixes found in the RV. alone, we shall find a striking resemblance between them and those of the Av. And from a combination of the two it will be possible with a fair degree of confidence to deduce the values which the suffix had in the common Ind.-Iran. period. We shall find, it may be added, that these values were surprisingly restricted, in comparison with the extent to which the suffix developed in later Skt. It will be seen at once that this fact may have an important bearing on the question of the origin of the suffix in the still more remote IE. period.—Probably it will appear that too much weight has been placed on the great frequency of the suffix in some historic languages, notably Skt. and Gk. But there is no evidence that it was at all common in the parent language; rather, there is evidence to the contrary.

105. Let us first take up briefly the state of the suffix in the RV. The only common use of it is our first category, 1 *ka* (§ 9), to which (with its subdivision, the diminutive *ka*) belong over half the *ka* words whose derivation is determinable. Inside this division the dim. and pej. words again largely predominate, with about 40 words as against 11 cases of 1 *ka* in its non-dim. use as a suffix of characteristic. Over half of the 40 diminutives are pejoratives of one sort or another.—The adjectival suffix 2 *ka* (§ 11) is unknown except for 7 pronominal adjectives (*māmaká* &c.) and the n. pr. *kuçiká* (§ 52) which is more or less uncertain, though it has been clast here. Only the faint beginnings of the Possessiv and Bahuvrihi suffix 3 *ka* appear, with three cases of a transitional character, which might be considered cases of 1 *ka* (characterizing adjectives). Interesting are the two RV. cases of 4 *ka*, giving activ value (§§ 13, 19).—None of the derived suffixes *ika*, *aka*, *uka*, *ūka*, are found, if we except *çāṇḍika* (said to be a patronymic < *çāṇḍa* on no other authority than Sāyaṇa), *sāyaka* and *sulābhikā* (uncertain and in any case not belonging in meaning to the later suffix *aka*), *sānuká* (really a case of primary *ka* from the verb-stem *sanu-*, like *viçarika* (§ 103) from *çarī-V(çr̥)*; and the curiously anachronistic word *jāgarúka* (§ 25). The little group of *ika* words (§§ 100, 101) is not very clear and may be neglected. The five RV.-adverbs in -*ka*

are also not clear, but are most likely developed from forms of 1 *ka*. There remain only the dozen or more primary *ka* derivativs.

106. Practically, then, in the RV. the suffix is used (1) as a primary suffix, most often giving active verbal force (which also appears in two secondary adjectives); (2) as a secondary suffix, forming nouns and adjectives of likeness and characteristic; (3) as a dim. and pej. suffix (developed out of the preceding); (4) as a secondary suffix forming adjectives of appurtenance and relationship (almost restricted to pronominal bases).

107. These same conditions are approximately reproduced in the Av., though not in the same numerical ratio; the proportion of diminutives is very much smaller, and the pejorative category is much less clear-cut and certain than in the RV., so that its existence might even be doubted from the standpoint of the Av. language alone. The investigation of such fine shades of meaning is extremely difficult in the Av. because of the limited material. A number of words which evidently contain suffixal *ka* cannot be classified with certainty as to semantics because the primitives from which they were derived do not chance to occur, so that we cannot be certain as to just the touch which the suffix added. Following is an attempt to classify the *ka* words of Av. along the same general lines already applied to the Vedic words.

108. *Suffix 1 ka* (§ 9). 12 words. a) noun < noun; mg. "like, similar to" (§ 40).

mašyāka, man (homo; perhaps orig. adj., humanus?) < *mašya*.

The *ā* is probably a textual mistake.

b) adj. or subst. < noun, mg. "characterized by (a quality or thing)."

apakhraosaka, reviling (i. e. having a nature giving to reviling, characterized by reviling, not the same as a verbal adj.); as Barth. rightly says, from **apakhraosa* (*apa-khrus*) = Skt. *apakroṣa*, n.—The accidental resemblance of this and one or two other words to the late Skt. development of primary *aka* (see § 96) should mislead no one. Cf. *nipaśnaka*, with analogous meaning, but proving by its suffixal *-na* that it is a nominal derivativ.

apaskaraka, scornful, < **apaskara* (hypothetical), "scorn." Cf. *apakhraosaka*. Barth. cannot explain the etymology. Could it not be from *apa-(s)kar*? In Skt. *apa-kr* means "injure, insult."

daitika, wild beast, presumably from *dat*; "characterized by, remarkable for teeth." The *i* is probably euphonic; cf. Vedic *iyat-t-ikā*, *mṛt-t-ikā*, § 36.—Cf. AV. 4. 3. 4 *vyāghrām dat-vātam prathamam*.

paitika, quarrelsome, < *paiti* = Skt. *prāti*. Barth. derives < *pait-yañc*, which seems inferior. Cf. Ved. *ādihika*, *únuka*, *antikā* (§ 47).

nipašnaka, envious (i. e. characterized by envy). < **nipašna* (hypothetical), envy, < *ni-pašna* (*Vpāš* = Skt. *paś*).

pūitika, "having the character of **pūiti* = Skt. *pūti*, cleansing"; i. e. cleansing (adj.).—This partakes of the character of 4 *ka*, by its active force.

bandaka, subject, vassal, < *banda*, fetter. Contrast Skt. *bandhaka*, captor (-*aka*).

nivayaka, terrifying. < **nivaya*, terror (*ni* + *vay*, *bay*, = Skt. *bhī*). Cf. *apakhraosaka*.

vazarka, great; cf. *vazārat*, mighty. Perh. cf. Skt. *ojas* &c. If so, it would mean "characterized by, having, strength." In this word and in *daitika* we have formations leaning in the direction of the possessiv suffix (3 *ka*), which however remain abortiv in Av.

spaka, dog-like, dog- (adj., applied to serpents). Cf. Hdt. 1. 110 *σπάκα τὴν κύνα καλέουσι οἱ Μῆδοι*.

c) subst. < adj. (§ 46). *syāmaka*, n. of a Mt., < **syāma* = Skt. *śyāmā*, dark, black. Cf. Av. *syāva-* (in comp.), id.

109. *Simple Diminutives*. (11 words.)

apərənāyuka, minor, child (usually adj.), < *a-pərənāyu*, id. ("not having full age").

araeka, a sort of ant. Etym. unknown. Dim.? Cf. Skt. *pipīlaka*, Lat. *formica*, &c.

kainikā, girl; Dim. of *kainī*, *kainyā* = Skt. *kanyā*.

kanukā, n. of a pious damsel. Cf. *kainyā*? Dim.? Perh. a misreading.

kasvikā, very tiny < *kasu*, tiny, (cpv. *kasyah*, sup. *kasiṣṭha*; the *i*-(*ka*) seems to have been carried over from these forms).

kutaka, small, cf. NP. *koda*, child. Presumably Dim.

carāitikā, young woman, < *carāiti*, id. Dim.; of Endearment?

jahikā, wife (of demon. beings); common, wicked woman. *jahī* has the same meanings. Dim. (orig. of endearment? or Pej.?)

pasuka, domestic animal. from and = *pasu*. Dim.? cf. Skt. *paçukā*.

nāirikā, woman, wife, chief wife (ahuric; opp. to *jahikā*).

< *nāirī*, woman, wife = Skt. *nārī*. Dim., prob. of endearment.

nemadka, brushwood, small kindlings, = *nemata*. Perhaps dim.

For the dropping of -a cf. Ved. *çálka* < *çalá*, § 29 b.

110. *Pejorativ Diminutivs.*

The extensiv development of the contemptuous and imprecatory meanings of the suffix *ka* which characterize the Veda is markedly lacking in the Av. In fact, on the basis of the Av. language alone it would scarcely occur to any one to set up this department of the suffix.—Nevertheless, there is a group of evil words in *ka*, mostly names and epithets of demoniacal personages, which seems to me too numerous to be quite accidental. Cf. the Ved. use of the suffix with names of demons, § 78.—It cannot be claimed to be absolutely certain that the suffix in these Av. words was felt in this way, but it is at least quite probable. Besides *jahikā* above (which may have been originally endearing) the following are the words in question. Their etymologies are largely uncertain. (10 words.) *dahaka*, n. of demons (also epithet of Vayu).—Cf. Skt. *dāsá*, *dāsyu*, Av. *dahyu*.

dahāka, n. of a fabulous demon-king. Cf. *dahaka*.

(*dužaka*); opprobrious epithet of the hedgehog.—Barth. takes it [as a Bah. < *duž* + *aka*; otherwise it might be a pej. formation.

(*druka*), n. of a disease, sin, or the like. Etym.? If suffixal at all, the *ka* is probably imprecatory.

pairikā, enchantress. Barth. in BB. 15. 8 < Skt. *para-*; very improbable, phonetically as he admits in his Lex., and also semantically. No etym. of value has been suggested. Prob. imprec.

*mūra**ka*, n. of devilish beings. Etym. and Mg. unc.; prob. < *mūra* = Skt. *mūrā*, dull, stupid. Pejorativ.

vawžaka, n. of a demoniacal animal; acc. to Barth. < **vawža* = bal. *gvabz*, bee, wasp, cf. Skt. *ūrṇa-vābhi*, spider.—Imprec.? *a-vərəzikā*, not working, lazy (demonic word). < *vərəzi*, working (comp.). Pej.

rapaka, supporting, siding with (only with *daevanam*). < **rapa Vrap*; Imprec.?

zairimyāka, n. of the tortoise, a demonic beast; acc. to Barth. "abbreviation" of *zairimyanura*, with dim. (i. e. imprec.) suffix.

111. *The Suffix 2 ka* (§ 11). (5 words.) As in the RV., the clearest examples are pronominal adjectives: *ahmāka* = *asmāka*, *yuṣmāka* = *yuṣmāka*. Furthermore: *anāmaka*, n. of a month, lit. "of, belonging to, the Nameless (the Supreme Deity)," acc. to Barth., < **anāman*. If this is correct, the suffix is *2 ka*.—*arika*, hostile, is better derived from **ari* = Skt. *arí*, enemy. Barth.'s labored derivation seems inferior.—Here seems also to belong: *pacika* < **paca* (*Vpac*) in the adj. *yāmō-pacika*, with *khumba*, "a vessel intended for burning glass." In this sole instance we have what looks like the Skt. suffix *ika* (§ 92). The lack of parallels in RV. and Av. is against this, however. Probably the *i* was really the result of some analogy, now indiscernible,—if it is not a corruption of the text.—That *vākhədrikā*, n. of a Mt., is a Vriddhi formation from an imaginary **vakhədra* is a quite arbitrary assumption on the part of Barth. There is no Av. instance of vriddhi with a *ka* suffix. Neither does the RV. know this phenomenon, which only comes in with the development of the suffixes *2 ka* and *ika*.

112. *Primary ka* (§ 103). (7 words.) *zinaka*, destroying, a true verbal adj. < *zīnā-*, present base of *Vzī-*.—*adka*, garment, = Skt. *atka*.—*varadka*, kidney, = Skt. *vrkka*.—*huška*, dry, = Skt. *śuška*.—*marždika* or *mərəzdika*, mercy, = Skt. *mṛḍikā*. The appearance of *i* (Skt. *ī*) in derivatives from this root is as perplexing as it is persistent.—*araska*, (supposed to mean) envy, cf. *arasyant*, Skt. *īrṣyati*. Abstract noun from root; cf. Ved. *ślōka* < *ṣru*, and the following.—*saokā* n. or f. advantage(?); < *Vsu*—to be of advantage to. Abstract noun < root, cf. *araska*. (Or, possibly, < *Vsuc* = Skt. *śuc*?)

113. *Unclassified*. (10 words.)

The following Av. words mostly must have suffixal *ka*, but are not clear etymologically.

kuganakā, n. of a city.—*tudatkā*, n. of a Mt.; has the appearance of being derived from a pres. part. stem, cf. Skt. *ejatkā*, *bṛhatka*.—*druvika*, howling, groaning (imprecatory *ka*?).—*pəraskā*, price; see Barth. Wbch. and references there quoted. If from the base IE. *pret-* (as generally assumed), the suffix must be *-skā*, for **prtkā* could not give Av. *pəraskā*.—*frašumaka*, buttocks.—*nyākā*, grand-father, -mother.—*yaska*, disease, perhaps for **yakṣ-ka*, cf. Skt. *yākṣma*.—*vākhədrikā*, n. of a Mt.—*vāidimīka*, in *urunyō-v.*, n. of a Mt. Uncertain; Barth. conjectures

-*mīdka* < **mit* = Skt. *mit*, pillar.—*sanaka*, mouth (of the Tigris). Etym. unknown.

114. *The Prehistoric Suffix ka.*

What, then, on the basis of these results, appears to have been the state of the suffix in primitive Aryan? Although argument from negation has its dangers, it is hardly likely that uses of any frequently occurring suffix which are found in later Skt., but not in the RV., nor in the Av., could have belonged to the prehistoric Ind.-Iran. On that hypothesis, we must rule out the derived suffixes *ika*, *aka* (Verbal), *uka* and *ūka*, all of which are practically lacking in RV. and Av.¹ We therefore cannot accept Brugmann's statement (Gr. II²: 1 p. 488) that the adjectival suffix *-igo-* (= Skt. *ika*) is found "throughout the entire IE. territory." In the oldest strata of Aryan it cannot be proved to have existed, unless by one or two sporadic and doubtful examples: and its extensiv growth in Skt. is certainly a late development.—The use of *ka* as a possessiv suffix (*3 ka*) shows only the barest beginnings in RV., and as a conscious suffixal category is also post-Aryan.—The suffix *2 ka* evidently existed in Aryan, but its use was principally restricted to pronominal stems. The adverbial *-k* is not demonstrably Aryan, no instance occurring in Av.—We have left, then, as the demonstrable uses of the *ka*-suffix in Ind.-Iran.: 1) the formation of nouns of likeness or adjectives of characteristic; 2) the diminutiv and (perhaps) pejorativ formations, 3) occasional formations with *2 ka*, mainly pronominal adjectives, and 4) the primary formations from verbal bases, apparently inclining towards the meaning of verbal adjectives or nouns of agent (with which meaning also a few secondary formations are created). This primary use of the suffix was proportionately much more frequent, it seems, in the prehistoric language than in the literature we have, where it has died out as an active formant, overwhelmed by the flood of secondary *ka* formations. In its

¹ Neglecting *jāgarūka*, the alleged patronymic *śāṇḍika*, and the isolated Av. *-pacika*. As has been said (§ 108) the *i* of Av. *daitika* is probably merely euphonic, cf. Ved. *mṛttikā*; and in any case its meaning does not fit with the ordinary meaning of the suffix *ika* (= *2 ka*). *-kasvika*, which Brugm. quotes as an example of Av. *ika*, is still less apt, for it is obviously a diminutive formation, and in Aryan they always take simple *ka*. As has been indicated (§ 109) its *i* is probably analogical, from *kasyah*, *kasistha*.

place sprang up the various derivativ *ka*-suffixes of Skt. which have this active value exclusively.

115. If these conclusions be accepted, it will be seen at once that the suffix *ka* was much more restricted in early times than is often assumed. It may be that in the same way the extensiv use of *-kos* suffixes in Gk. and other languages will prove to be secondary. At any rate, from the Aryan point of view the range of the IE. *kos* or *gos* appears to have been quite limited.

116. We cannot conclude this brief allusion to the IE. suffix *ka* (which will probably at some future time receive more fitting consideration) without mentioning Leskien's interesting chapter on the related *k*-suffixes of Lithuanian¹, especially as it seems to bear out in general our position as to the comparatively restricted use of *ka* in IE. In Lith., according to Leskien, *ka* appears principally in the derivativ suffixes *ika*, *oka*, *uka*,—all evidently of secondary origin and not dating back to the Ursprache. They preserve (in a confused and rather hit-or-miss way) practically the same meanings which we arrived at as the values of the suffix in Aryan, to wit: 1) primary formations, verbal adjectives and nouns of agent; 2) secondary formations of characteristic (*1 ka*), especially making substantives out of adjectives (cf. § 46); 3) diminutives; 4) secondary adjectives and patronymics (our *2 ka*); the secondary adjectives are principally words in *-oka* (= Skt. Av. *-āka*) from pronominal stems,—so that the correspondence is almost marvellously close. I should be very loath to believe that this is entirely accidental; I think that we have here the kernel of the suffix *-kos* (*gos*) in IE.

117. To show that the derived suffix *-ika* in Lith. does not really support the hypothesis that such a suffix existed in IE. we need only mention that its principal values are 1) formation of nouns of agent from roots, 2) formation of diminutives from nouns. Neither of these meanings for *-ika* is found at all in Skt. literature,—least of all in the Veda.—An interesting parallel to Skt. formations in *-aka* (masc. neut.), *-ikā* (fem.) is the Lith. combination of masc. *-uka* with fem. *-ike*. Whether this is enough to establish an IE. fem. suffix *-ikā*, corresponding to masculines in *-o-ko*, is doubtful; but such a phenomenon would

¹ Bildung der Nomina im Litauischen. p. 504 ff.

be quite conceivable, and is contradicted by nothing of which the writer is aware. To be sure the masculine *-aka* (IE. *-oko-*) is replaced in Lithuanian by a different form of the suffix.

Statistics of Vedic k-Words. .

118. Detailed statistics are hard to give. Some of the words are used in different senses and hence counted twice; others are classified under more than one head because they might belong to any one of them. The following figures are approximately correct:

1 <i>ka</i> (circ. 110 + Dim., circ. 180)	circ.	290
2 <i>ka</i>		53
3 <i>ka</i> (21 + Bah., 96)		117
4 <i>ka</i>		5
Unclassified Secondary <i>ka</i>		87
Total Secondary <i>ka</i>	circ.	550
Suffix <i>ika</i> (with Vriddhi 105; without 15)		120
<i>aka</i> (1 <i>aka</i> 2; 2 <i>aka</i> 8; 3 <i>aka</i> 45)		55
<i>uka</i> (Participial 71; others 5)		76
<i>ūka</i>		3
<i>īka</i>	circ.	20
<i>k</i>		6
Primary <i>ka</i>	circ.	30
Total	circ.	860

General Index and List of Vedic k-Words.

	See §
- <i>aṅśaka</i> = <i>áṅśa</i> , ifc. Bah.—Māitr. Up.	55
- <i>akṣaka</i> = <i>akṣán</i> , ifc. Bah.—KSA. 5. 3. Cf. <i>-akṣika</i> and	54 a, 55
<i>akṣamālikā</i> , "little rosary," n. of an Up., Mukta Up.	62
- <i>akṣiká</i> , ifc. Bah. = <i>ákṣi</i> , TS. 7. 5. 12. 1, cf. <i>-akṣaka</i> and	54 a, 55
<i>agnika</i> , ifc. Bah., = <i>agní</i> . Gop. Br.	55
<i>agnihotraka</i> , n. of an Up., Mukta Up.	51
- <i>aṅśaka</i> , ifc. Bah., = <i>áṅśa</i> , KSA. 5. 3	54 a, 55
<i>ajāvika</i> , see s. v. <i>avikā</i>	44
<i>añjalikā</i> (or <i>nyañjalikā</i> ?), ?Comm. <i>hastāgravarttinam añja-</i> <i>lim</i> .—The passage (TĀr. 1. 6. 1) reads: <i>tvaṁ</i> [sc. <i>çīçirah</i>] <i>karoṣi ny añjalikām</i> <i>tvaṁ karoṣi nī jānukām</i> <i>nī jānukā</i>	

- me ny añjalikā | amī vācam upāsataṃ iti* |.—The accents are hopelessly confused.—The whole passage is very dark and uncertain. The comm. takes *ni* with *karōṣi* in the first clause, and in the third supplies *bhavatu*. His laborious explanation is about as follows: “The winter causes people to make an *añjalikā* (see above) downwards (towards the fire, for warmth).—It causes them to bend the knees (see s. v. *jānukū*) downward (to warm the body at the fire).—‘Let there be of me a bending of the knees, an *añjalikā*!’—These (wise people) cherish this saying (during the winter)” 58
- añyaskā*, more tiny, AV.¹ < *añyas*, smaller 63
- anuka* = *ānu*, ifc. Bah. Māitr. Up. 55
- ātka*, armor, garment, RV. &c. 103
- , n. of an Asura, RV.
- ādhi*, additional, < *ādhi*; Kāty. Cr. 47
- anantaka*, n. of a Nāga, Gāruḍ. Up. 78
- (*ānika*, face.) *-ka* not suffixal, but an *a*-extension of a formation in *-(y)añc*, *-ic*; cf. *prātika*, *abhika* &c. The base is compared with Gk. *év*. For the *i* cf. *év*.—or otherwise it may be merely analogical to *prātika* &c., as is undoubtedly the case with *samīkā* (q. v.), from *sanīyāñc* —
- ānuka*, subordinate, < *ānu*. ÇB. 47
- āntaka* < *ānta*, ending, ender, AV. &c.; as npr. Death. 56, 19
- AV., VS. &c.; (*antakā*) border, ÇB. 40
- antikā* < *ānti* in adv. forms *-am*, *-at*, *-e*; near. RV., AV. . . 47
- anyakā*, other (contempt.—imprec.), < *anya*. Only RV. 74. 82
- apakrāmuka*, retiring, TS. &c. 99
- apaniśāduka*, lying down apart, MS. 99
- aparódhuka*, detaining, MS. 99
- abhikrōcaka*, reviler, VS. (so Sāy.—“*nindaka*”; so also BR.; Griffith—“watchman”) 96, 97
- abhiniviṣṭaka*, stale (food)—? Mān. Gr. 2. 13. 5. See Knauer’s note 46
- abhimādyatkā*, somewhat drunk, ÇB. 65
- abhimānuka*, insidious, ÇB. Āit.B., &c. 99
- abhiméthikā*, insulting speech, ÇB. 95
- abhivāduka* in *an-a*, not greeting, Gop.B. Vāit. 99
- abhyavacāruka* in *ān-a*, not attacking, MS. 99
- abhyāyuka*, coming to, Kap. S. 99
- abhyārōhuka*, ascending, MS. 99

- āmanikā*,—? AV. 20. 130. 9 (Mss. *āmanako mánachakāh*;
 RWh. *āmanikā manichādaḥ*; RVKh. 5. 15. 7 *āmanako mánasthakah*, q. v. 58
 (*amótaka*, corrupt Ms. reading AV. 20. 127. 5. RWh. *amota gā*.) —
-ambaka, ifc. Bah., as *try -ā*, having 3 mothers? n. of Rudra RV. 55
ambālikā, dear little mother, VS. (voc., *āmbālike*) 67
ambikā (voc.), dear little mother, VS. &c. (Also n. of sister of Rudra) VS. &c. 67
arāṭakī, n. of a plant, AV. The Comm. do not attempt to explain the word. Cf. *mṛga-rāṭikā* (Lexx. only), a medicinal plant and pot-herb; *rāṭi*, war (Lexx.). *Vrat* shriek. 58
ariṣṭaka, having the disease *āriṣṭa*. Kāuṣ. (acc. to MW. Addendum) 53
ārtuka, quarrelsome, ÇB. 99
(ardhaka-ghātīn)—? AV.¹ Prob. the Ppp. *adhvaya-ghātīn* is the true reading. “Slayer of travellers” means Rudra, who is besought to spare the speaker. The verse is in a charm for safe travel. See notes of Bloomfield and Henry for discussion —
ārdhuka, prospering, ÇB. 99
arbhakā, small (dim. and contempt.) RV. &c.. . . . 63, 72
armakā, heap of ruins, RV. 79
 (in Kāuṣ 26 appears to be an adj. “ruined”).
ālakam, in vain (contempt.) RV. 76, 37
alābuka, the fruit of the gourd, AV., RVKh. 62
(ālīka) < **ali-añc*, cf. *ānīka*; **ali-* cf. ἄλλος, alius &c.. . . —
alpakā, *ikā*, small (dim. obs.) AV., ÇB. 63, 86
āvakā (once, MS. 3. 15. 1, *-ka*), a plant; AV., VS. &c. 47
avaghaṭarikā, n. of a musical instrument, Çāṅkh. Gr. 62
avacatnuka, Āit. Br.—Sāy—“n. of a country.” Obscure 58
avacarantikā, AV. contempt. < *avacarantī* 73
avatakā (Mss. and RWh. *avatkā*), little spring, AV. 62
avadhūta = *āvadhūta*, n. of Upaniṣad, Mukt. Up. 44
avabhedaka, “piercer,” headache, Pār. Gr. 96, 97
(āvākka), ÇBr. 9. 1. 2. 22, artificial word, as if *avāk* [*avañc*] + *ka*, invented to explain *āvakā*, q. v.) —
avikā (or *avīkā*), ewe-sheep, lamb, RV., AV. 62
ajārikā, goats and sheep, = (dvandva) *ajāvī*, ÇBr. 44

<i>açanâyuka</i> , hungry, ÇB.	99
<i>-açūtika</i> , ifc. Bah., as <i>sāçūtika</i> . with (i. e. plus) eighty.	
Garbh. Up.	55
<i>açvakā</i> , horse (imprec.), VS. TS. &c.	79
<i>āṣṭaka</i> , consisting of 8, ÇBr.; n. pr. Āit. Br. < <i>aṣṭā</i> ; - <i>kā</i> . the	
day of the moon's quarter. AV.	53
<i>asakāu</i> , = <i>asāu</i> (obs.), VS. &c.	86, 37
<i>asūyaka</i> , envious, Māitr. Up.	97
<i>āstaka</i> , home. AV. < <i>āsta</i> .—ifc. Bah. in <i>svastakā</i> —AV.	41, 55
(<i>astamīkā</i> , adv. - <i>ikē</i> , at home, < <i>āstam</i> , id., by analogy with	
- <i>ika</i> formations like <i>prātika</i> &c.. cf. <i>ānika</i> , <i>ālīka</i> , <i>samīkā</i>) —	
<i>-asthaka</i> (KSA. 5. 3) and <i>-asthika</i> (TS. 7. 5. 12. 2) ifc.	
Bah. = <i>asthān</i> (<i>āsthī</i>)	54 a, 55
<i>asmāka</i> , our, RV. &c.	51, 30 a Note
<i>āhallika</i> , prattler?, ÇB. (BrĀrUp.)	71
<i>-ākhyaka</i> , ifc. Bah. in <i>ādharākhyaka</i> . Rām. Up. (= <i>ākhyā</i>)	55
<i>āgantuka</i> , accidental, adventitious, Āçv. Çr.	45
<i>āgāmuka</i> , coming to, MS.	99
<i>āgnika</i> , of Agni, or the sacrificial fire, Kāty Çr. &c.	94
<i>āgniṣṭomika</i> , of the <i>agniṣṭomā</i> , ÇBr.	94
<i>āgnyādheyika</i> , of the <i>āgnyādheya</i> , Kāty Çr.	94
<i>ājāvika</i> , made of goat's and sheep's hair, Kāuṣ.	94
<i>ātīkī</i> , n. pr. of the wife of a Rishi, Chā. Up.— <i>Vālī</i> ; cf. <i>ātaka</i>	
(only Lexx.), <i>ātīka</i> , n. of a YV. school; <i>āta</i> , n. of Nāga	97
<i>ādhaaka</i> , a measure of grain, Garbh. Up. Obscure	58
(<i>ādharīkā</i> , see <i>dhārīkā</i>).	
<i>āṇḍīka</i> , "egg (i. e. bulb-) bearing," the lotus, AV. Kāuṣ.	53
<i>ātmaka</i> , of the nature (self, <i>ātmān</i>), Chā. Up., Çvet. Up.	50
<i>ātmabodhaka</i> = - <i>dha</i> , n. of an Upaniṣad, Muk. Up.	44
- <i>ādika</i> , ifc. Bah. = - <i>ādi</i> , Rām. Up.	55
<i>ādhikārika</i> , of the <i>ādhikāras</i> (individual sections), Çāṅkh Gr.	94
<i>ādhyātmika</i> , of the <i>ādhyātmā</i> , Gāudap.	94
<i>ādhyāyika</i> , occupied in reading (<i>ādhyāya</i>), Tait. Up.	94
<i>ādharika</i> , of the <i>ādharā</i> , ÇBr., Kāty Çr.	94
<i>ānumānika</i> , inferential, Āp., Kāty Çr.	94
<i>ānuyajika</i> , of the after-sacrifice, Mān. Çr.	94
<i>ānuṣūkā</i> , shot after? TS. 2. 3. 4. 2. Uncertain word.	58
<i>āparāhnikā</i> , of the afternoon, Āçv. Çr., Kāty Çr.	94
<i>āpartuka</i> , unseasonable, Kāuṣ.	49
<i>ābhicarānika</i> , maledictory, Kāty Çr.	94
<i>ābhicārika</i> , incantation, Kāuṣ.	94

<i>ābhiplavika</i> , of the Abhiplava, Āçv. Gr.	94
<i>ābhyudayaika</i> (concerning the rise of anything; as n.), a kind of <i>çrāddha</i> . Āçv. Gr.	94
<i>ābhūka</i> , powerless, AV.	72, 33
(<i>āmanaka</i> , see <i>āmaṇika</i> .)	
<i>āmālaka</i> , a tree and its fruit, Chā. Up. and Class. < <i>amala</i> spotless?	49
<i>āmivatkā</i> , pressing, pushing? TS. 4. 5. 9. 2.—See <i>vikṣiṇatkā</i> and <i>vicinvatkā</i> . These three are among a list of honorific epithets of certain gods, found in the Çatarudriya. No dim. force of any kind is discernible	42
<i>ārakāt</i> , far, from a distance (Imprec.), ÇBr.	83, 37
<i>āranyaka</i> , a class of Vedic works, Arun. Up.	49
<i>āruka</i> , hurting TĀr.	99
<i>āruṇaketuka</i> , of the <i>aruṇa-ketus</i> (spirits), TĀr.	49
(<i>ārksāka</i> , see <i>rkṣ-</i> .)	
<i>ārcatkā</i> , n. of Çara, RV. A Patronymic. ultimately (and perhaps directly, cf. § 11, 49) < * <i>rcat</i> , <i>Varc</i> , cf. infin. <i>rcase</i> (RV.)	58
(<i>ārjīkā</i>) RV., a n. pr., deriv. of <i>ṛjika</i> , q. v.	—
<i>ārdhuka</i> , beneficial, Çāṅkh B.	99
- <i>ālambhukā</i> in <i>an-ā</i> , not to be touched, TBr., Kāth.	24
<i>āvadānika</i> , offered after being cut up in pieces, Vāit.	94
<i>āvapantikā</i> , scattering (grains, of the bride in the wedding- rite) AV.; Pār. Gr. &c. Suffix obviously cannot be pejo- rative; some related texts have <i>āvāpantī</i> ; may be merely metrical, and the Sūtra passages then due to reminiscence of the older (metrical) version	45
<i>āvika</i> , of sheep; woolen, ÇB.; Kāty Gr.	94
- <i>āçaka</i> in <i>ān-ā</i> .—not eating, a fast, ÇB.	95
<i>āçarika</i> , rheumatism, AV.	103
- <i>āçirka</i> . ifc. Bah. = <i>āçis</i> , TS.	55, 36 (s.) a.
<i>āçvamedhika</i> , of the <i>açvamedhā</i> , ÇBr.; Kāty Gr. &c.	94
- <i>āsandika</i> in <i>sās-</i> , ifc. Bah., Kāty Gr.	55
<i>āsuka</i> , n. of a Sāman Ārṣ Br.	103
(<i>āsmākā</i> , our, RV.—see <i>asmāka</i>)	—
<i>ikṣvāku</i> (or <i>ikṣvākū</i>), n. pr. RV., AV.—< <i>ikṣu</i> sugar-cane?	33 c
<i>indragopaka</i> , little firefly Amṛt. Up.	62
<i>invakā</i> , n. of a Sāman SV.; of a constellation TBr. < - <i>inva</i>	46
<i>iyattakā</i> , - <i>ikā</i> , so tiny, RV.	74, 36
<i>iṣikā</i> (once - <i>ā</i> , Kāuç 11), arrow, reed, AV., ÇB. &c.	101

<i>iṣukā</i> , arrow = <i>iṣu</i> . AV. ¹	41
<i>iṣṭakā</i> , brick, cf. Av. <i>iṣtya</i> , VS.; TS. &c.	46
<i>īksaka</i> , spectator, ÇBr.; Āçv. Gr.	96, 97
<i>īṣikā</i> , arrow, MS. The variant from <i>iṣikā</i> is doubtless meaningless, probably a mistake	—
<i>-ukthaka</i> in <i>sókthaka</i> , having an <i>ukthá</i> , ÇB.	55
<i>ucchōṣuka</i> , drying up. Gop. Br.; ÇBr.	99
<i>utpāṭikā</i> , outer bark of a tree, Brh. Ār. Up. Cf. <i>útpata</i>	58
<i>utpādaka</i> , producing, Nṛsut. Up. (in <i>-ka-tva</i> , noun)	97
<i>udaká</i> , water, RV. &c.	42
<i>udgrāsaka</i> , devouring, Nṛsut. Up. (in <i>-ka-tva</i> , noun)	97
<i>uddālaka</i> , n. of a teacher. ÇBr. &c.; cf. <i>uddāla</i> , a plant.	58
<i>udbāndhuka</i> , one who hangs up, TS.	99
<i>udbhāsaka</i> , shining, Nṛsut. Up. (in <i>-ka-tva</i> , noun)	97
<i>udbhrāntaka</i> , roaming, Nṛsut. Up. (in <i>-ka-tva</i> , noun)	
44 ad fin.—Note	
<i>unmantaka</i> , insane, Āçram. Up.	68
<i>unmāḍuka</i> , fond of drink, MS.; TS.	99
<i>upakrāmuka</i> , approaching; acc. to Wh. Gram., in Brāhmaṇas	99
<i>upajihvikā</i> , <i>upajikā</i> . <i>upadikā</i> , ant; RV. &c.	62
<i>upadāsuka</i> , failing, TS.	99
<i>upanāmuka</i> , bending towards, ÇBr.	99
<i>-upaniṣatka</i> , in <i>uktópan</i> .—having heard the Upaniṣāds, ÇB. (Brh. Ār. Up.)	55
<i>upapātaka</i> , minor sin, Nār. Up. &c.	66
<i>-upasatka</i> in <i>try -u.</i> , ifc. Bah., Āp. Çr.	55
<i>upasthāyuka</i> , approaching, Kāth.	99
<i>-upānatka</i> in <i>an-up.</i> , without sandals (<i>upānāh</i>), Kāty Çr.	55, 36
<i>upānasyaka</i> , n. of Indra, Āp. Çr. Cf. <i>upānasá</i> , adj., being in a carriage, RV.; n.—the space in a carriage, AV.	58
<i>upāsaka</i> , servant. Kāuç &c.	96, 97
(<i>urūka</i> , owl, = <i>úluka</i> , Āit. Br.)	—
<i>urvāruká</i> , gourd, RV., AV. A late and interpolated verse	44
<i>úluka</i> , owl, RV. &c.	79
<i>ulūkhalaka</i> , mortar (Dim. End.) RV. ¹ (as voc.)	67
(<i>ullá</i> , firebrand; <i>ka</i> prob. not suffixal, cf. <i>varcas</i> , Volcanus)	—
<i>úlmuka</i> , firebrand. Āit. Br.; ÇB. &c. Unc. etym.	58
<i>usriká</i> , bullock (contempt.) RV. ¹	71, 29 a, Note
<i>ūtika</i> , n. of a plant, subst. for Soma, Kāth. &c. Probably mistake for <i>pūtika</i> , q. v.; or else the two words have in- fluenced each other	101

<i>ūnaka</i> , defective, lacking, Çāṅkh Çr.	80
<i>ūrdhvaka</i> , raised, Sāmny. Up.	45
<i>ṛkṣāka</i> (or, as Wh. conj., <i>ārka</i> -) AV. ¹ Sāy "inhabited by bears," which is mere etymological guesswork. The whole passage is obscure, and this word is prob. corrupt.	58
<i>ṛkṣāka</i> , n. of an evil spirit, AV.; VS.; ÇBr. Cf. <i>ṛkṣa</i> ?	101
<i>-ṛjika</i> , beaming, gleaming (in cpds.); RV. &c. (as <i>āvīr-ṛj</i> .)	100
<i>ṛdhak</i> (or <i>ṛdhāk</i>), separately, RV. &c.	27
<i>ṛdhmuka</i> , causing increase, Āçv. Gr.	99
<i>-ṛṣika</i> in <i>sarṣika</i> , ifc. Bah., Āç. Gr.	55
<i>ēka</i> , one, RV. +	103
<i>ēkakā</i> ¹ , singly, RV.; just one, AV. ¹	47, 66
<i>ekākīn</i> , alone, AV., VS. &c. Formation problematic. Pāṇ. 5. 3. 52 notes it as a solitary form, without explanation or parallel. BR. suggest an <i>añc</i> formation	47, 29 c
<i>ekatrinçaka</i> , consisting of 31, Gāuḍap.	53
<i>ejatkā</i> , kind of insect, AV. ¹	81
<i>elāpatraka</i> , n. of a Nāga, Gāruḍ Up.	78
<i>āikāhika</i> , of the one-day offering, Āit Br.; ÇBr. &c.	94
<i>āiḍakā</i> , of the <i>eḍa</i> (sheep), ÇBr. &c.	49, 79
—n. a vicious ram (should be <i>eḍaka</i> ?). ÇBr. <i>āitareyaka</i> , the Āit. Br.: see I. St. 1—106, 7	50
(<i>āinvaka</i> , n. of two Sāmāns, < <i>invaka</i> ; Ārṣ. Br.)	—
<i>āiṣṭika</i> , of the <i>iṣṭi</i> —sacrifice, Āçv. Çr.; Kāuṣ Up.	94
<i>orimikā</i> , n. of a section of the Kāth. S.; see I. St. 1. 69, 70.—	
Uncertain	58
<i>āúttaravedika</i> , of the northern altar, ÇBr.	94
<i>āupavasathika</i> , of the <i>upavasathā</i> —rite, Āçv. Çr.	94
<i>kakāṭikā</i> ?—? part of the head (Wh. hindhead), AV. Obscure	58
(Prob. for <i>kṛkāṭikā</i> , neck-joint, = <i>kṛkāṭa</i> id., AV.)	
<i>kātuka</i> , sharp, bad, RV., AV.	80
<i>-kanikā</i> , a minute part of any thing, in <i>vaṭa-k.</i> , Sarvop.	62
<i>kāntaka</i> , thorn, AV. 14. 2. 68 (?); ÇBr. &c.— <i>kaṇṭa</i> only in cpds.—Uhlenbeck holds it to be prakr. for <i>*kṇṭaka</i> , <i>Vkṛt.</i> —Unc.	44
<i>-kaṇṭhaka</i> , <i>ikā</i> , in <i>sahā-k.</i> , with the throat, AV.	55
<i>-kadruka</i> in <i>trī-k.</i> , having three vessels, RV., AV.	55
<i>kānaka</i> , golden, Adbh. Br.; Sāmh. Up.—No <i>*kana</i> occurs. Uhlenbeck cf. <i>κνῆκος</i> and <i>Honig</i>	58

¹ Either accent.

<i>kanáknaka</i> , sort of poison, AV. ¹ (?)	79
<i>kanánakā</i> , mistake for <i>kanínakā</i> , pupil of the eye, only TS. ¹	62
<i>kunīṣṭhakā</i> , <i>ikā</i> , smallest, only AV. ¹ ; <i>kanīṣṭhikā</i> little finger QBr. &c.	63
<i>kanīnakā</i> , -ā, <i>kanínakā</i> , -ikā, pupil of the eye, RV. &c. .	62
The words never, in the passages which occur, have the primitive meaning of "boy" or "girl" (<i>kanína</i> , -ā).	
<i>kanyākā</i> , pupil of the eye, Āit. Ār.	62
<i>kāplaka</i> ? v. l. <i>kālpaka</i> . TBr.—Mg. unknown	58
<i>kambūka</i> , husk of rice, AV.	40, 33
<i>karkā</i> , white, AV. The <i>ka</i> is perhaps not suffixal. Unc. .	103
<i>karkaṭaka</i> , crab. Brahm. Up.	44
<i>karkandhukā</i> , RV. Kh. 5. 22. 3 = (<i>kárkandhūkā</i>) AV. 20. 136. 3—jujube-berry. (< <i>karkándhu</i>) (Dim.).	62
<i>karkarikā</i> , kind of lute, AV.	62
<i>karkoṭaka</i> , n. of a Nāga, Gāruḍ. Up.	78
<i>kārṇaka</i> , "earlet." tendril, QBr.: handle (also - <i>kā</i>), TS., MS.; of the two legs extended, AV. ¹ ; (- <i>karnakā</i>) ifc. Bah. = <i>kārṇa</i> , TS.	62, 86, 55
<i>karnaveṣṭaka</i> , earring, = - <i>ṭa</i> , Pār. Gr.	44
<i>kalañka</i> , spot, in <i>nīs-k.</i> , Nār. Up.—Uncertain	58
- <i>kalpaka</i> in <i>a-k.</i> , irregular, Gāuḍap. (see also <i>kāplaka</i>). .	55
<i>kālmālīkīn</i> , RV.—glorious? Epithet of Rudra. Sāy. says from * <i>kālmālīka</i> (not found) = <i>tejas</i> . Cf. <i>kālmālī</i> —(AV.) "glory"? Grassmann "funkelnd."—Ludwig "pfeilträger," which according to his note is "offenbar" the meaning; I confess I am unable to follow him.—The word <i>kālmālī</i> (see above) is itself very doubtful and might mean any- thing, so that Sāyaṇa's interpretation, which Roth, Grassmann and Delbrück follow, is dubious	58, 31
<i>kaṣikā</i> , weasel?, RV.	101
<i>kaṣōka</i> , n. of hostile demons, RV.; AV. Cf. <i>kūṣa</i> ? . . .	58
<i>kānukā</i> , ? RV. See § 21	21
(<i>kāñṭaka</i> , thorny, < <i>kāñṭaka</i>)	—
<i>kāmikā</i> , n. of certain letters in a mystic alfabet; Rāmap. Up. Presumably < <i>kāma</i>	58
<i>kāmuka</i> , desiring; a lover. TS.	99
<i>kāraka</i> , maker &c. Garbh. Up.	97
<i>kāruka</i> , artisan, artificer (?) acc. to Wh. Vbl. roots, in Brāhmaṇas. I find no instance before Epic times . . .	99
<i>kāḷakā</i> , unidentified bird, VS.; "Blackish"	64

- See §
- kālīka*, n. of a Nāga, Gāruḍ. Up. 78
- kāverakā*, n. pr., patronymic < *kūvera*, AV. 49
- kāsikā*, cough, AV. 79
- kiṃçukā* (in *su-k.*), a plant or flower; RV. AV. 58
- kiñjalka*, plant-stalk, Āçv. Çr. 44, 29 b
- kirikā* or *girikā*, epithet of gods in Çatarudriya, meaning unknown, various guesses (sparkling, Eggeling; sprinkling, Griffith) VS. &c. 58
- (*-kiška* see *çvakiskīn*.)
- kīlaka*, the middle syllables of a mantra—Hams. Up. (as being the stake or post, *kīla*, to which the extremes are attached) 40
- kuṭhārikā* in *pāda-k.*, ÇGr.; a position of the feet 91
- kunika*, n. of a teacher, Āp. 46
- kundikā*, little pot, Saṃny. Up.; also title of an Up. 62
- kumārakā* (or *kumār-*), *ikā*, boy, girl, (< *kumārā*) RV.; AV. &c. 62, 79
- kumbhaka*, retention of the breath, as relig. exercise; Amṛt. Up. &c. 40, 95
- kumbhīka*, kind of demon, AV. Cf. *kumbhā* 101
- kulika*, n. of a Nāga, Gāruḍ. Up. 78
- kulīkā*, a bird, VS. (MS. has *pulīkā*).—Uncertain; cf. *kulipāya*, an animal (VS.); Uhlenbeck cf. russ. *kulik*, snipe &c. 101
- kuçavartaka*, AV.—corrupt and uncertain. RV. Kh. reads *āhalakuç çavartakāḥ*, which Scheft. thinks is the true reading 58
- kuçikā*, n. pr., RV.: pl. his descendants, RV. &c. Prob. < *kuçī*, pin used as mark in recitation from texts 52
- kuṣītaka*, n. of a bird, TS.; of a man—Tāṇḍya Br.—Uncertain 58
- kuṣumbhakā*, RV., venom-bag of an insect (< *kuṣūmbha*) 71, 79
- kūṣṭhikā*, dew-claw, spur, AV., Āit. Br. 40, 90
- kustuka*, n. of a teacher, Vam̐ça Br.—Entirely obscure 58
- kuhaka*, rogue, cheat; Māitr. Up.; Āp. 79
- (*krka*—said to mean “throat” or “navel”; Prob. onomatopoeic, cf. *krkara*, *krkana*—partridge.—In *krka-dāçñ*, a demon; *-vāku*, cock; *-lāsā*, lizard) —
- kṛtaka*, false, artificial, Gāuḍap. 80
- kṛttikā*, the Pleiades (as a sword), AV. &c.; cf. *karttikā*, dagger (Cl.). The noun *kṛtti* seems to mean only “hide, skin.” Prob. Primary *-aka* 20, 96, 97
- kṛtsnaka*, all, Çāṅkh. Çr. 16. 29. 8 (Lexx. wrongly 9) = *kṛtsnā* 45

<i>kṛmukā</i> , kind of tree, = <i>kramuka</i> , q. v.; ÇBr., Kāuṣ.	44
<i>kṛṣṇaka</i> , "blackish," n. of a plant, Kāuṣ.	64
<i>-keçakā</i> in <i>sarva-k.</i> , having all the hair, AV. (Bah.)	55
<i>kāirātikā</i> , of the <i>kirātas</i> (contempt.), AV. < <i>kāirāta</i>	72
<i>koçātaka</i> , a plant and its fruit, Çāṅkh. Gr.; presumably < <i>kôça</i>	58
(<i>kāulikā</i> , a bird, < and = <i>kulikā</i> , q. v.; VS.; MS.)	—
(<i>kāuṣikā</i> , < <i>kuṣikā</i> , son of <i>kuṣikā</i> , or friend of <i>kuṣikā</i> [Indra])	—
(<i>kāuṣītaka</i> , - <i>ki</i> , patron. < <i>kuṣītaka</i> , and n. of a Brāhmaṇa)	—
<i>kyāku</i> , fungus, Āp. Dh.; Gāut.—Obscure	58, 29 d
<i>kramukā</i> , the betelnut tree, Śaṅv. Br. = <i>kramu</i> (only Lexx.), <i>kṛmuka</i>	44
(<i>kṛmukā</i> , piece of kindling-wood, TS. &c., < <i>kramuka</i> by assimilation)	—
<i>klūtaka</i> , dough, paste, Āçv. Gr. &c. Obscure	58
<i>kṣitikā</i> , a part of a lute, Kāuṣ. ? Cf. <i>kṣitī</i> ?	58
<i>ksullakā</i> , small (dim.); AV., TS. &c. < <i>ksudrā</i>	63, 68, 72
<i>kṣurikā</i> , "little razor," n. of an Up., Kṣur. Up.	62
<i>kṣódhuka</i> , hungry, TS., ÇB.	99
<i>kṣāumika</i> , made of linen, Kāuṣ.	94
<i>kṣvīṅkā</i> , an evil bird, RV., AV. &c. Prob. onomatopoeitic	103
<i>khāṇḍika</i> , pupil, Kalpas.; n. of a man, ÇB. (cf. <i>śāṇḍika</i>)	92
<i>khanātaka</i> , little shovel, Āp. Çr. 17, 26 (NBD. "dug up.")	62
<i>khārvaka</i> , mutilated (imprec.) AV. < <i>kharvā</i>	80
<i>khāṇḍika</i> - ? Gobh. 3. 3. 8.—Comm. <i>çiṣyasamūha</i> ; but see Oldenberg's note	58
<i>khādaka</i> , eater, Gobh. Gr. ap. Prayaçc. in Ç. K. Dr.	96, 97
<i>gāṇaka</i> , astrologer, < <i>gana</i> ; VS. &c.	51
<i>gavīdhuka</i> or <i>gavē</i> -, coix barbata, TS. = <i>gavīdhu</i> (not Vedic)	44
<i>gavīṇikā</i> , groins (?), AV.—metr. for <i>gavīṇī</i>	41
(<i>gāvīdhukā</i> , <i>gāve</i> -, deriv. < <i>gavīdhuka</i>)	—
(<i>gīrikā</i> , MS., for <i>kirikā</i> , q. v.)	—
<i>godānika</i> , of the <i>godāna</i> -rite, Gobh. 3. 1. 28 (cf. <i>gāud</i> -)	92
<i>gonāmika</i> , n. of MS. 4. 2, called after <i>gonāmā</i> formulas	92
<i>gopikā</i> , protectress, Gop. Up.	44
<i>golaka</i> , ball (dim.), Gobh. Gr. &c.	62
<i>golattikā</i> , kind of animal, VS., TS.; cf. <i>lattikā</i> (Uṇ.) lizard	58
<i>gāudānika</i> , of the <i>godāna</i> -rite, Āçv. Gr. &c. (cf. <i>god</i> -)	94
<i>grāhuka</i> , seizing, TS. (cf. <i>grhū</i> - RV.)	99
<i>ghātaka</i> , kind of wood, Āçv. Çr.; = <i>ghāta</i> and <i>vādhaka</i>	46
<i>ghātuka</i> , slaying, AV., TB., ÇB. &c.	99
<i>cakraka</i> , wheel, Māitr. Up.	44

	See §
<i>triká</i> , in threes, RV., Lāṭy &c.	47
<i>trāivarsika</i> , a triennial performance, Āṣv. Ćr.	94
<i>trāividya</i> , practised by <i>trāividyas</i> , Āp.	50
—n., their doctrine, Mān. Gr.	
- <i>tvákka</i> , ifc. Bah. = <i>tvác</i> , skin, TS. in <i>a-t</i>	55
- <i>tsaruka</i> , ifc. Bah., Tāṇḍ. B. (in M. W. Addendum)	55
<i>dāṇṇuka</i> , biting, TBr., TS., Kāth.	99
<i>daṇḍaka</i> , a class of meters, Chandaḥs., Han. Rām. Up.	46
- <i>datka</i> , ifc. Bah. = <i>dānt</i> , Chā. Up.	55
- <i>dantāka</i> , ifc. Bah. = <i>dānta</i> , TS., ĆBr.	55
<i>dandaṣṭka</i> , biting, malignant, VS., TS., ĆBr.	25
<i>daṣaka</i> , consisting of 10, Chandaḥs.	53
<i>daharaka</i> , short, Kāuṣ. Br.	63
<i>dākṣiṇāgnika</i> , performed in the southern fire, Mān. Ćr.	94
<i>dāyaka</i> , giving (in Veda only ifc.), Muk. Up.	97
<i>dāyaka</i> , heir, < <i>dāyá</i> , Gr. S.	53
<i>dārṣapūrṇamāsika</i> , of the New- and Full-moon sacrifice, Ćāṅkh. Ćr.	94
<i>dāṣarātri</i> , celebrated like the <i>daṣarātrá</i> , ĆBr. &c.	94
<i>dāhuka</i> , burning, TBr., Āp. Ćr.	99
- <i>dikka</i> in <i>a-d</i> ., having no part of the heaven, ĆBr.	55
<i>dūtaka</i> , n. of Agni, Gr. S. Cf. <i>Vdū</i> , <i>du</i>	58
<i>dūraká</i> , far (pej.), RV., AV.	80
<i>dūṣikā</i> (<i>dūṣikā</i> Māitr. Up. 1. 3), rheum of the eyes, VS., Kāth., ĆBr.	32, 79
<i>dūṣika</i> , n. of demons, AV., Primary, <i>Vdūṣ</i> , and not to be confused with the foregoing, which is secondary, from the n. <i>dūṣi</i>	100
<i>dṛbhika</i> , n. of a demon, RV.	100
<i>dṛṣika</i> , worthy to be seen, splendid, RV.	101 b, c.
—n. appearance, RV. &c.— <i>ká</i> , id, RV.	
<i>drṣikū</i> , beholder, TS., Āp. Ćr.	100
<i>dévaka</i> , god (contempt.), RV., adj. divine, Kṛṣ. Up. (< <i>devá</i>). 71, 51 — <i>ikā</i> , an inferior class of goddesses, Āit. Br., ĆBr.	66
<i>deṣika</i> , teacher, Rāmap. Up., Muk. Up.	92
<i>dyumnika</i> , n. pr., supposed author of RV. 8. 76. < <i>dyumnín</i> , glorious	46, 36.
<i>dvaká</i> , by twos, RV.	47
<i>dvārakā</i> , "City of Gates," Vāsu Up.	53
<i>dhanuṣka</i> , small, poor bow. Lāṭy	71
<i>dhayantikā</i> , sucking (contempt.), AV. Ppp. folio 115 b, line 1	73

	See §
<i>dhāṇikā</i> (prakr. form of <i>dhān-</i>), vagina, AV., TS. &c.	86
- <i>dhātuka</i> , ifc. Bah. = <i>dhātu</i> , Garbh. Up.	55
<i>dhāṇikā</i> , vagina, RV. Kh. 5. 22. 8.	86
<i>dhārakā</i> , vagina, VS., ÇBr.	86
<i>dhārmika</i> , righteous, Chā. Up.	94
<i>dhārmuka</i> , righteous, Mān. Çr.	21
- <i>dhāvanaka</i> in <i>danta-dh.</i> , n. of a tree, Kāuṣ., prob. < <i>dhāvana</i> , cleaning (a tree "for teeth-cleaning")	50
<i>dhuvaka</i> , acc. to Wh. Vb. forms from <i>Vdhū</i> , in Jām. Br. 96, 97	
- <i>dhūmaka</i> in <i>a-dh.</i> , without smoke, Kāth. Up., Māitr. Up.	55
<i>dhénukā</i> , female, <i>Weibchen</i> ; AV., Pañcav. Br. &c.	89
<i>nañçuka</i> , perishing, Kāth.	99
(<i>nāgnaka</i>) - <i>ikā</i> , naked, wanton (imprec.), AV. (< <i>nagnā</i>).	80
<i>naḍaka</i> , hollow of a bone, Kāty Çr.	40
<i>napāthka</i> , concerning a grandson, n. of a cert. sacrificial fire, Kāth.	51
<i>nāpuṇsaka</i> , eunuch (contempt.), ÇBr., Kāty Çr. &c.	71
<i>nabhāka</i> , n. pr., Āit. Br.—Cf. <i>nabha</i> , <i>nábhas</i> ?	58, 29c
<i>narāka</i> , hell, TĀr. Uhlenbeck cf. <i>νεπ-θεν</i> &c. Not clear.	58
- <i>navaka</i> , ifc. Bah. = <i>nāva</i> , Garbh. Up.	55
<i>nāka</i> , heaven, RV., AV., VS. &c.	103
<i>nāḍikā</i> , throat, AV. (< <i>nāḍī</i>)	40
(<i>nābhākā</i> , adj. or patron < <i>nabhāka</i> , RV.)	—
<i>nābhikā</i> , navel-like cavity, ÇBr.	40
- <i>nāmaka</i> , <i>ikā</i> ifc. = <i>nāmar</i> , Bah., Çiras. Up.	55
in <i>ánāmikā</i> , ring-finger (for semantics see BR.), ÇBr. &c.	
<i>nāyaka</i> , leader, chief, Gāudap.	97
(<i>nāraka</i> , hellish, < <i>narāka</i> , AV. &c.; VS. <i>nārakā</i>).	—
<i>nāçuka</i> , perishing, TS.	99
<i>nāsikā</i> , nostril, du. nose, RV., AV. &c.	62
<i>nāstika</i> , atheist; Āp.; Muk. Up. (cf. <i>āstika</i> , Cl., < <i>asti</i>)	94
<i>nika</i> , n. of a Sāman, Ārṣ. Br.	103
<i>nikharvaka</i> , one billion, Pañcav Br.	44
<i>nikhātaka</i> , cut into a little, AV.	65
(<i>nijānukā</i> ? see <i>jānukā</i> , TĀr. 1. 6. 1.)	
<i>niñik</i> , secretly, RV.	27, 29a
<i>nimuṣṭika</i> , of the size of a fist, Āit. Ār. 5. 1. 3. 6 (p. 405. 6).	53
<i>nimuṣṭi</i> , a measure of that size.	
<i>nirodaka</i> , read <i>nirodhaka</i> (Deussen), hindering, Brahm. Up.	97
- <i>nirdāhuka</i> in <i>á-n.</i> , not burning down, MS.	99
<i>nirmārguka</i> , withdrawing from, TS.	99, 24

<i>-cakṣūṣka</i> in <i>a-c.</i> , without eyes, Brh. Ār. Up.	55
<i>cāṇḍātaka</i> , short petticoat, QBr., Kāty Qr. Obscure derivation	62
<i>caturthaka</i> , fourth, Nād. Up.	45
<i>catuska</i> , consisting of 4; Lāty, Vāsu Up.	53
<i>candrikā</i> , moon, Rāmap. Up.	91
<i>cāraka</i> , wanderer, mendicant, QBr. (also n. of a YV. school).	46
<i>-carmāka</i> in <i>a-c.</i> , without skin, TS.	55
<i>cāturthāhnika</i> , of the 4th Day, Qāṅkh. Qr.	94
<i>cāturthika</i> , of the 4th Day, Lāty	94
<i>cāturdhākāranika</i> , of a division into 4 parts, Āp. Qr.	94
<i>cāturviṇṇika</i> , of the 24th day, Qāṅkh. Qr.	94
<i>cāturhotṛkā</i> , of the <i>cāturhotṛ</i> service, MS.	49
<i>-cārika</i> in <i>utpatha-c.</i> , having byways for a course, Nrsut.	
Up. (in <i>-ka-tva</i> , noun)	54, 55
<i>cikitsakā</i> , physician, QBr. &c.	51
<i>ciccikā</i> , kind of bird, RV., TBr. Obscure	58
<i>-citika</i> in <i>śūt-c.</i> , ifc. Bah., QB.	55
<i>-cintaka</i> in <i>kāla-cintaka</i> , considering; Gāuḍap.	97
<i>cupunīkā</i> , one of the Pleiades, TS. Obscure	101
<i>cūlaka</i> , top of a column, Cūl. Up.	40
<i>cēlaka</i> , n. of a man, QB.	46
<i>codaka</i> , direction, invitation, Kāty Qr.	95
<i>chattrāka</i> , mushroom. Adbh. Br. (= <i>chattraka</i> , Class., < <i>chattra</i> , parasol.)	40, 29c.
<i>chāndomika</i> , of the <i>chandomás</i> , Qāṅkh. Qr., Kāty Qr.	94
<i>chāyaka</i> , n. of a demon, AV.	78
<i>chūbuka</i> , chin (Class. Skt. <i>cibuka</i>). RV., QBr. &c. Obscure.	58
<i>janakā</i> , u. of a king, QBr. (Brh. Ār. Up.), cf. <i>jāna</i>	53
<i>jāmbhaka</i> , "crusher." n. of a demon, VS.	78
<i>jayantaka</i> , n. pr., Rāmap. Up. < <i>jayanta</i> , victorious	46
<i>jarāyuka</i> , after-birth, Sāmav. Br. = <i>jarāyu</i> . No reason is apparent for the use of the form in <i>-ka</i> in this passage.	44
<i>jalāyukā</i> , leech, in <i>tr̥ṇa-j.</i> , caterpillar, Brh. Ār. Up. Thought to contain <i>jala-āyu</i> = <i>āyus</i> (Bah.), but cf. <i>jalāuka</i> and other forms. Popular etymology has operated here. Origin uncertain	58
<i>jāhakā</i> , hedge-hog, VS., TS. Supposed to be from <i>Vhā</i>	103
<i>jāgarūka</i> , wakeful, RV.	25
<i>jātaka</i> , newborn child, Kāuṣ.	62
(<i>jānaka</i> , <i>-ki</i> , patron, from <i>janakā</i>)	
<i>jānukā</i> , bearing, MS., Āp. Qr. Cf. <i>janā</i> , AV.	99

<i>jānukā</i> -? TĀr. 1. 6. 1; Comm. <i>jānupradeça</i> . See s. v.	
<i>añjalikā</i>	58
<i>jāpaka</i> , muttering, Nrp. Up.	97
<i>jāyuka</i> , conquering, MS. Cf. <i>jāyá</i> , RV.	99
<i>jālaká</i> , little net, web, Brh. Ār. Up.	62
(- <i>jihvikā</i> see <i>upā-j.</i>) - <i>jihvaka</i> ifc. Bah. = <i>jihvá</i>	54a, 55
<i>jīvikā</i> , epithet of water (end. dim.), MS. &c., Āçv. Çr.;	
life, Kaṭhop.	44, 95, 67 q. v.
<i>jumbaká</i> , n. of a Varuṇa, VS., ÇBr. Obscure	58
<i>jyāká</i> , bowstring (pej.), RV., AV.	79
<i>jyāiṣṭhasāmika</i> , adj. < <i>jyeṣṭhasāman</i> , Gobh. 3. 1. 28	94
<i>jyotāyamānaká</i> (MSS. - <i>maka</i>), n. of demons, AV.	81
<i>jyotiṣṭomika</i> , of the <i>jyotiṣṭoma</i> , sacrifice, Kāty Çr.	92
<i>ḍerikā</i> , muskrat, Āp. 1. 25. 13. Obscure	58
<i>ḍhārikā</i> and <i>āḍhārikā</i> , centipede, Āp. Gr. Obscure	58
<i>taká</i> , that (contempt). RV., AV., Kāty Çr.	75
<i>takṣaká</i> , n. of a Nāga. AV., Kāuṣ. (= - <i>ṣa</i>)	78
<i>taṭāka</i> , pool, = <i>taṭā</i> . Śaḍv. Br., Adbh. Br.	46, 29c.
- <i>tantrika</i> , ifc. Bah. = <i>tāntrī</i> , thread, Pañcav Br.	55
- <i>tapaska</i> , ifc. Bah. = <i>tāpas</i> , Māitr. Up.	55
- <i>tamaska</i> , ifc. Bah. = <i>tāmas</i> , Chā. Up.	55
<i>tarūṇaka</i> , sprout, AV.	62
<i>tādarthika</i> , intended for that. Kāuṣ.	94
<i>tādātmake</i> , <i>ikā</i> , denoting the unity of nature, Rāmat. Up.	49
<i>tāraka</i> , carrying across, saving, Māitr. Up.	97
(<i>tāraká</i> , adj. of stars; < <i>tārakā</i>)	—
<i>tārakā</i> (< <i>tārā</i>), star, AV., TBr., ÇBr. &c.	44
<i>tāluka</i> , du. n. the two arteries supplying the palate, Tāit. Up.	50
<i>tāvaká</i> , thine, RV. (only 1 Vedic occurrence reported) (< <i>tāva</i>)	49
<i>tiraṣcikā</i> , a horizontal region? So BR.—Āçv. Çr.	46
<i>tīlvaka</i> , a plant of evil name, ÇBr., Āçv. Gr. &c.	79
<i>tūṇḍika</i> , having a snout or trunk (<i>tūṇḍa</i>), AV.	92
- <i>tūlaka</i> , <i>ikā</i> , ifc. Bah. = <i>tūla</i> , mattress, Rāmat. Up.	55
<i>tūṣṇika</i> , silent, in Veda only adv. - <i>kam</i> , silently, Mān. Çr.	45
<i>tūṣṇīm</i> , id. RV.—The text is dubious, and Knauer	
calls this word suspicious.	
<i>tr̥tīyaka</i> (< <i>tr̥tīya</i>), recurring the 3 d day, AV.	51
(<i>tr̥ṣṭaka</i>) - <i>iká</i> , rough (creature), AV.	80
- <i>tejaska</i> , ifc. Bah. = <i>téjas</i> , Brh. Ār. Up.	55
<i>tāittirīyaka</i> , of the Tāit. school, Mukh. Up.	50
<i>tāuvilikā</i> , (voc.) n. of a female demon, AV. ¹ Obscure	78

<i>nirmitaka</i> , conjured up, illusory, Gāuḍap.	80
<i>nirmretuka</i> , withering, Pañcav Br.	99
- <i>nivartaka</i> in <i>a-n.</i> , not flying or flinching, Māitr. Up. . . .	97
- <i>nivitka</i> ifc. Bah. = <i>nivid</i> , Āit. Ār.	55
<i>niṣkā</i> , a neck-ornament, RV., AV. &c.	103

Uncertain. Uhlenbeck compares OHG. <i>nusca</i> . Ir. <i>nasc</i> , ring.	
<i>nihākā</i> , storm, whirlwind, RV., TS. Obscure	103
<i>nāimittika</i> , occasional, accidental, Kāty Ćr. &c.	94
<i>nāiyamika</i> , settled, prescribed, Āp.	94
- <i>nāiṣcārīka</i> , in <i>a-n.</i> not distracting, Āp.	94
<i>nāiṣṭhika</i> , final, perfect, Āçram. Up.	94
(<i>nyañjalikā</i> ? See s. v. <i>añjalikā</i> . TĀr. 1. 6. 1.)	
<i>nyastikā</i> , n. of a plant, AV. ¹	46. 91
<i>nyūñkhamānaka</i> . see <i>-mānaka</i> .	

<i>pakvakā</i> ? AV., RVKh. Prob. corrupt. The Lexx. do not render the word. Grif. "that knoweth." May be either "ripe, mature," or "gray, hoary," < <i>pakvā</i> . Uncertain.	58
- <i>pañcaka</i> , consisting of 5; a group of 5, Gopī. Up.	53
<i>pañcaviñcaka</i> , consisting of 25, Gāuḍap, Mahā. Up.	53
<i>pāṇḍaka</i> , eunuch, weakling, Kāth. &c. (contempt.).	71
<i>patantaka</i> , kind of rite, Lāṭy. Cf. <i>patat</i> ?	58
<i>patayīṣṇukā</i> , flying off, unsteady (imprec.). AV.	80
<i>patākā</i> , flag, Adbh. Br. 10. 3. Primary <i>ka</i> ? No noun <i>patā</i> exists. <i>Vpat</i> ; formation dubious	58, 29c
- <i>patnīka</i> , ifc. Bah. = <i>pātnī</i> , wife, Āit. Br., Kāty Ćr.	55
<i>padmaka</i> , n. of a serpent-prince or demon, Gāruḍ. Up.	78
<i>parāpātuka</i> , abortive, TS.	95
<i>parābhāvuka</i> , perishing, transient, Kāth.	99
<i>parārīkā</i> , leek, Āp.—Obscure; v. l. <i>palārīka</i>	58
<i>paridīpaka</i> , lighting up, Gāuḍap.	97
<i>paripreçhaka</i> , inquirer, Gop. Br.	97
<i>parivrajaka</i> , wandering (mendicant), Aruṇ. Up.; Āçram Up. . . .	97
- <i>pariçritka</i> , ifc. Bēh., = <i>pariçrit</i> , Kāty Ćr.	55
- <i>pariṣatka</i> , ifc. Bah., = <i>pariṣād</i> , Gobh.	55
<i>parisāraka</i> , n. of a place, Āit. Br., <i>pari-Vsr</i> ; formation uncertain	58

<i>parisāra</i> as n. reported by Wils. only—"wandering about."	
<i>parutka</i> , having knots or joints, Āp. Ćr.	53, 36 (s)—b
<i>paruṣaka</i> , a tree (= <i>paruṣa</i>) and its fruit, Çāñkh Ćr.. . . .	44
<i>partikā</i> , RV. Kh. 5. 15. 8, v. l. <i>patikā</i> ; corrupt and uninterpretable	58

<i>parpharīka</i> , ? RV. ¹	100
<i>paryāyikā</i> , strophic, AV.	92
<i>pālījaka</i> , n. of a demon, AV. ¹ . Obscure	78
<i>-paçuka</i> , ifc. Bah., = <i>pācu</i> (or <i>paçū</i>), Āçv. Çr.	55
<i>pāka</i> , very young, Çāṅkh Gr. 3. 2.—simple, RV., AV. &c.	103
<i>pājaka</i> , a kitchen implement, Āp. Çr. Etym.?	58
<i>pāñcamāhnika</i> , of the 5 th Day, Çāṅkh Çr.	94
<i>pātaka</i> . acc. to Wh. Vb. roots in the Brāhmaṇas. <i>Vpāt</i>	96, 97
<i>pātaka</i> , fall, downpour, Saṃny. Up. 2; sin, Cāṅkh Çr. &c.	95
<i>pādakā</i> , little foot (End. Dim.), RV. ¹ (< <i>pāda</i>)	67
<i>pādukā</i> , slipper, Āçram. Up.	62
<i>pāpaka</i> , evil, ÇBr. &c. (< <i>pāpa</i> or <i>pāpā</i>)	80
<i>pāramārthika</i> , real, actual, Mukṭ. Up.	94
<i>(pārivrājaka</i> —adj. < <i>parivrājaka</i> , Kāuç.)	
<i>pārṣṭhika</i> , after the manner of the <i>Prṣṭhyā</i> . Lāty &c.	49, 29 a
<i>pāvakā</i> , clear, bright, RV. &c.; n. of Agni. TS. &c.; fire, in general, Muṇḍ Up. 2. 1. 1	18 Note ¹ ; 58
An ancient word; from <i>Vpū</i> , but exact formation uncertain. Early appearance and accent forbid taking it as primary <i>-aka</i> , which Sāy. does (" <i>cobhaka</i> ").	
<i>paçuka</i> , concerning cattle, Kāty Çr.; Çāṅkh Çr.	49
<i>pāçubandhaka</i> , of the <i>paçubandhā</i> . Āçv. Çr.; Çāṅkh Çr.	49
<i>pikā</i> , Indian cuckoo, VS. (Uhlenbeck cf. <i>pīcus</i> ; very doubt- ful)	103
<i>pīṅgalakā</i> , <i>ikā</i> , yellow, tawny, AV. (< <i>-lā</i>)	64, 72
<i>pīṇyāka</i> , oil-cake, Āp. (no reference given). Obscure	58
<i>-pitṛka</i> , ifc. Bah. = <i>pitṛ</i> , Kāty Çr.; Āçv. Gr.	55
<i>pitṛmedhika</i> , of the <i>pitṛmedha</i> . Saṃny. Up.	92
<i>(pīdāku</i> —for <i>pīdāku</i> q. v. MS.)	
<i>pīnāka</i> , staff, bow, AV.; VS.; TS.	58
Uhlenbeck cf. <i>πίναξ</i> and Oslav. <i>pīni</i> , tree-trunk.	
<i>pīṇlaka</i> (< <i>-lā</i>), ant, Chā. Up.— <i>ika</i> , ant, only Adbh. Br. (Prob. to be emended to <i>-aka</i> or <i>ikā</i>)	62
<i>-ikā</i> , small ant, AV.; ÇBr.; Pañc. Br. &c.	
<i>pīppakā</i> , a sort of bird, VS. (cf. <i>pīppika</i> , Class., a bird or beast)	58
<i>pīyaka</i> , n. of a class of demons, "abuser," AV.	96, 97
<i>pīyūṣaka</i> , biestings, RV. Kh. 5. 15. 14.—The parallel AV. text has <i>pīyūṣa</i> , but the meter needs an extra syllable,— which the later compiler evidently added	41
<i>pūklaka</i> or <i>pūlkaka</i> , n. of a despised tribe, MS. Not certain	71

punḍārīka, lotus blossom, RV.; AV. 58

Prob. connected with *punḍari-srajā* (TBr.),—but the meaning of this *punḍari* is uncertain; cf. *punḍarin*, another flower (Lexx.).

putrakā, little son, RV.; AV. (< *trū*) 62, 67

-puro'nuvākyāka, ifc. Bah. = *puro'nuvākyā*, QBr. in *a-p.* . . . 55

-purorūka, ifc. Bah. = *purorūc*, QBr. in *a-p.* 55

(*pulīkā*—MS.—variant for *kulīkā*, q. v.) 101

(*pūlkaka*, see *pūklaka*.)

pūtīka (once *-ika*, Āçv. Çr. 6. 8), a plant, (< *pāti*), substitute

for soma, TS.; Kāth.; QBr. &c. 46, 31

pūraka, filling (noun), Amṛt Up.; Dhyān. Up. 95

-pūrvaka in *nyāya-p.*—having reason as precedent—Gāudap. 55

-prṇākā in *hariṇa-p.*, female young of an animal, Āp. Çr. 62

pṛthak, isolated, scattered (adv.), RV., AV. &c. 27

pṛthuka, rice or grain flattened and ground, TBr. < *pṛthū* 46

pṛdāku, serpent, RV.; AV.; TS. Cf. *πάρδος*, acc. to Uhlenbeck loanword from Ind.-Iran. **parda-* 58, 29 c

prṣātaka, a mixture of ghee, milk &c. (cf. *prṣat*), AV.;

Pār. Gr. 58, 15

-*kī*, a disease, or the she-demon causing it, AV.

perukā, n. pr. RV. 46

pēsuka, spreading out, QBr. 99

poṣuka, thriving, Śaçv. Br. 99

pāunarādheyika, of the *punarādhēya*-rite, Āçv. Çr. &c. . . . 94

pāuruṣamedhika, of a human-sacrifice, QBr.; Kāty Çr. . . . 94

pāurvāhnika, of the forenoon, Kāty Çr. 94

prakṣepaka, throwing (n. act.), Māitr. Up. 95

pracalāka, chameleon, Āp. *pracalākā*—cloudburst(?) TS.—

Cf. *pracalaka*, Class., reptile; *pracala*, creeping &c. 46, 29 c

pracitaka, n. of a meter, Chandaḥs. 44

pracyāvuka, transitory, fragile, Çāṅkh Br. 99

-prajāpatika in *sa-p.*, ifc. Bah.—Āit. B. 55

pratiçrūtā, echo, VS.; Kāuṣ. Up. 42

-pratisthāyuka in *ā-p.*, not standing firm, MS. 99

praticikā, AV., < *praticī*, f. of *pratyāñc*; mg. uncertain; "offense" ? 80

-pratyutthāyuka in *a-p.*, not rising respectfully, Gop. Br. . . 99

pradātrikā, (female) giver, MS. 91, 35 a

pradāyaka, bestowing, Garbh. Up. 97

pradrāṇaka, very poor, Chā. Up. (*pra*—intens; *-ka*—Pity.) 68

<i>prapāthaka</i> , section, n. of divisions of cert. works, as TS.,	
QBr., Chā. Up.	62
<i>prapāduka</i> , falling prematurely (fetus), TS.; Kāth.	99
<i>prabāhuk</i> , on an even line, Āit. Br.; TBr.; TS. &c.	27
<i>prabhrāṇṣuka</i> , falling off, vanishing, QBr.; TBr.	99
<i>pramāyuka</i> , perishing, AV.; TS.; TBr. &c.	99, 23
<i>pravartaka</i> , one who sets in motion, Qvet. Up.	97
<i>pravartamānakā</i> , slinking down, RV. ¹	73
<i>pravālhikā</i> , riddle, challenge, Āit. Br.; Cāṅkh Cr.	91, 95
<i>prasarpaka</i> , assistant or spectator at sacrifice, Āçv. Cr.; Lāty	46
<i>prahastaka</i> , n. of RV. 8. 86. 13—15.—Kāuṣ Ār.; Cāṅkh Cr.;	
< <i>prahasta</i> , extended hand. Application not clear to me.	
—Lex. gives Cāṅkh Br., wrongly	58
<i>prahūraka</i> , carrying off, Kap. S.	99
<i>prākaraṇika</i> , of the <i>prākaraṇa</i> , Mān. Gr.	94
<i>prākārūka</i> , ? perhaps scattering about? Kap. S., Kāth.	99
<i>prāgāthika</i> , of or derived from the Pragātha (i. e. RV. 8),	
Lāty &c.	94
- <i>prāṇaka</i> ifc. Bah. = <i>prāṇā</i> , KSA. 5. 3 <i>apraṇakāya svāhā</i> ,	
cf. TS. 7. 5. 12. 1 <i>apraṇāya svāhā</i>	54 a, 55
<i>prātinidhika</i> , substitute, Kāty Cr.	94
<i>prātiçrutkā</i> , existing in the echo, Brh.Ār.Up.	49
<i>prādeçika</i> , chief of a district (<i>pradeça</i>), Kāuṣ	94
<i>prāyaçcittika</i> , expiatory, Āçv. Cr.	94
<i>prāçātika</i> , a leguminous plant, Āp. Cr. Cf. <i>praçātika</i> , - <i>sātika</i> ,	
various grains (Class.)	58
<i>prīyaṅgukā</i> , panic seed (dim.), Sāmavidh Br.	62
<i>prekṣaka</i> , deliberating on, Mān. Gr.; as n. spectator	96, 97
<i>plāçuka</i> , rapidly growing up, QBr.; Kāty Cr.	45, Note
<i>baka</i> (a crane, only Class.), n. of a demon, Mān. Gr.; of a	
seer, Kāth. &c.	103
<i>baṭaraka</i> , m. pl., lines of light appearing before closed eyes,	
Āit. Ār. ?	58
<i>bāddhaka</i> , captive, AV. < <i>baddhá</i>	79
<i>babhrukā</i> , brownish (clearly dim.), CB.; (<i>bā-</i>) ichneumon,	
VS. &c. (< <i>babhrú</i>)	64
<i>balākā</i> , crane, VS., &c. Obscure	58
<i>bālhika</i> , n. of a man, QBr.; of a people, AV.	52
<i>bādhaka</i> , a cert. tree, Gobh.; also as adj., of the <i>bādhaka</i> -	
tree. Uncertain; cf. <i>bādhá</i> (?), obstacle, trouble, &c.	50
<i>bālaka</i> , young; child, Kṛs. Up. &c.	63

(<i>bālāki</i> , metronymic from <i>balākā</i> as n. p.)	
- <i>bāhuka</i> , ifc. Bah. = <i>bāhū</i> . Āç. Gr. (in <i>ud-b.</i>)	55
- <i>binduka</i> , ifc. Bah. = <i>bindū</i> . Nṛp. Up.	55
<i>bṛbūka</i> ,—? RV. ¹ —Entirely uncertain. Grassmann, "dick, dicht."—Ludwig "murmelndes Wasser."—BR. ?	58
- <i>bṛhatika</i> , ifc. Bah., Çāṅkh Çr. (in <i>tato-b.</i>)	55
<i>bṛhatka</i> , n. of a Sāman, Pañcav. B.	42
(- <i>bodhaka</i> in <i>ātma-b.</i> , q. v.)	
- <i>brahmaka</i> , ifc. Bah. = <i>brahmán</i> , Āçv.Çr.	55
<i>brāhmāudanika</i> , (fire) on which the <i>brahmāudanā</i> (the priest's rice) is boiled; Kāuç. (with or sc. <i>agnī</i>)	94
<i>bleška</i> , noose, snare, Kāṭh.	103
- <i>bhasmaka</i> , ifc. Bah., Gop. B. (in <i>sa-bh.</i>)	55
- <i>bhāktika</i> , retainer, Āp. (in <i>nitya-bh.</i>)	94
<i>bhāradvājakī</i> , skylark, = - <i>jī</i> . Sāmav. B.	44
<i>bhāvuka</i> , being, becoming, TS. Kāṭh &c.	99
<i>bhāṣika</i> , general rule, Çāṅkh Gr. &c.	40, 29 a
<i>bhikṣuka</i> , mendicant, Pār. Gr.	44
<i>bhinna</i> , broken (contempt.), Mantra B.	72
<i>bhūmipāçakā</i> , a plant, = - <i>ça</i> (m.), Sāmav. B. 2. 6. 10	91
<i>bheka</i> , frog, Māitr. Up. Prob. onomat.	103
<i>bhāumaka</i> , terrestrial animal or being, Adbh. Br.	49
<i>mākaka</i> , kind of demon, AV.	79
<i>mākṣikā</i> , fly RV.; AV. &c.	62
<i>maṅgalikā</i> , of good omen, AV.	67, 29 a
- <i>majjāka</i> , ifc. Bah. = <i>majjān</i> . TS.	55
<i>madṣṣikā</i> (v. l. <i>maṭ-</i> , <i>maṇḍ-</i> . <i>madh-</i> , <i>mandh-</i>) a dwarfish girl, unfit for marriage, Āp. Gr.	58
<i>maṇika</i> , water-jar, Āçv. Gr.: Gobh. &c.—Āit. Br. 7. 1—acc. to Sāy., a fleshy excrescence on an animal's shoulder	40
<i>manipūṛaka</i> , a mystic circle on the navel, Harṇs. Up. 1	44
<i>maṇḍāka</i> , frog, RV. &c. Uncertain origin	58
<i>maṇḍurikā</i> (edd.; MSS.— <i>riti</i>), vile, filthy woman, AV. ¹ (voc.)	86
<i>mādhuka</i> , n. pr., ÇBr. (<i>mādhu</i>)	53
<i>madhūka</i> , a bee, Çāṅkh. Gr.; a tree and its fruit, ib.	51
<i>madhūlaka</i> , sweetness, honey, AV.	48
<i>madhyamikā</i> , the middle finger, Prāp. Up.	46, 91
<i>madhvaka</i> , bee, Adbh. Br.	51, 33 b
<i>manaskā</i> , mind (impr.), AV.; ifc. Bah. = <i>mānas</i> , Kath Up. &c.	79, 55, 54 a

<i>mānasthaka</i> , RVKh. 5. 15. 7,—“freundlich gesinnt” (Scheft.), see s. v. <i>āmanikā</i>	58
<i>manānāk</i> , RV. Obscure word, see	27
<i>mantrikā</i> , n. of an Up., Mukh. Up.	51
<i>māmaka</i> , my, only RV.	51
<i>markaṭaka</i> , kind of grain, Āp. Gr.	51
<i>maryakā</i> , male, Männchen. RV ¹	88
<i>maçāka</i> , gnat, AV., VS., ÇBr. &c. (w. r. <i>masāka</i>)	62
<i>mastaka</i> , head. Mahānār. Up., and <i>mastiṣka</i> , brain, RV., AV. &c. Cf. <i>mastu-luṅga</i> , brain. The base seems to have been <i>mast-a</i> , <i>i</i> or <i>u</i> . Uncertain	58
<i>mahānāmnikā</i> , of the Mahānāmni, Gobh.	52
<i>mahāvratika</i> , of the Mahāvratā Sāman, Çāṅkh Gr. . . .	92
<i>mahīlukā</i> , female, AV. ¹	89
<i>-mānsūka</i> ifc. Bah., = <i>mānsā</i> , TS.	55
<i>mākī</i> , du., RV. ¹ This word has been variously rendered. Ludwig makes it an adj. to <i>nāptyā</i> , either “brüllend” (<i>Vmak</i> ; application?), or (and this I believe to be right) from base <i>mā-</i> of the 1st. pers. pronoun; see § 30a, Note. The phrase then means “my daughters he has helped . . . to marriage (<i>janitvanāya</i>).” This interpretation seems to me secured by comparing <i>mākīna</i> , which L. apparently did not notice, but which is obviously a derivative from the stem <i>mākī</i>	50, 30 a Note
<i>mākīna</i> , mine, RV. < <i>mākī</i> , q. v.	50, 30 a Note
(<i>mākṣika</i> , spider, Brahm. Up., prob. deriv. < <i>mākṣikā</i> .)	
<i>mātrka</i> , “das Mutterwesen,” (Deussen) n. abstr. < <i>mātṛ</i> , Māitr. Up.	48
<i>mādānaka</i> , kind of wood, Kāuṣ.—Uncertain; cf. <i>mādana</i> (adj.)	58
<i>mādhuparkika</i> , of the <i>mādhuparkā</i> rite, Çāṅkh Gr. . . .	94
<i>-mānaka</i> in <i>nyūṅkha-mānaka</i> , having a desire to insert the <i>nyūṅkha</i> , Çāṅkh Br. 25, 13; 30. 8 (Bah. from <i>māna</i>).— BR. regard it as a participle; but there is no verb <i>nyūṅkhati</i> . only <i>nyūṅkhayati</i> . The sentence is: <i>tasmān nyūṅkhayati</i> <i>nyūṅkhamānaka iva vāi prathamam cicariṣuḥ carati</i> . From this the following semantic proportion is evident— <i>nyūṅkhamānaka</i> : <i>nyūṅkhayati</i> = <i>cicariṣu</i> : <i>carati</i> . Ergo, <i>ny.</i> = “desiring to perform the act <i>nyūṅkhaya</i> , i. e. to insert the <i>nyūṅkha</i> .”—The noun <i>māna</i> = “desire” . . .	55
<i>mānuṣyaka</i> , human, ÇBr. (< <i>manuṣyā</i>)	49

	See §
<i>māmakā</i> , mine, RV. &c. (< <i>māma</i>)	49
<i>mārūka</i> , dying, TS.; Mān. Gr. Cf. <i>marū-</i>	99
(<i>mārdāikā</i> , deriv. of <i>mṛdāikā</i> , RV. &c.)	101
<i>muktikā</i> , "string of pearls," n. of an Up., Muk. Up., < <i>muktā</i>	53
<i>mukharikā</i> , bit of a bridle, Kāty Ār. 16. 2. 5 (Lexx. wrongly 4)	62
<i>muṇḍaka</i> , n. of an Up., Muk. Up.	46
<i>muṣkā</i> , testicle, RV. &c.; female organ (in du.), AV. &c.	86
<i>muṣṭika</i> , n. of a fighter, Kṛṣ. Up.	53
<i>muhukā</i> , moment, RV.	62
<i>mūka</i> or <i>mūkā</i> , dumb, VS., ĀBr.	103
<i>mūtakā</i> , little basket, ĀBr.	62
<i>mūṣaka</i> , rat or mouse (Dim.), Gāruḍ. Up.; - <i>ikā</i> , id, VS.	62
<i>mṛdayāku</i> , merciful, RV.	45, 29 d
<i>mṛdāikā</i> , favor, only RV., AV.	101
<i>mṛttikā</i> , earth, clay, VS.; Āit. Br. &c.	44, 36
- <i>mēka</i> in <i>sumēka</i> , well-established, RV. Most often of heaven and earth	103
- <i>medāska</i> , ifc. Bah. = <i>mēdas</i> , TS., in <i>a-m</i>	55
<i>menakā</i> , n. of a daughter of Ménā, Śadv. Br. (metron.)	51
(<i>meṣka</i> for <i>bleṣka</i> &c., only <i>m-hata</i> , Āp. Ār.)	
<i>māinākā</i> , n. of a Mt., TĀr.—Metronymic < <i>mēnā</i>	49
- <i>mocaka</i> , releasing, Muk. Up.	97
<i>mōhuka</i> , falling into confusion, TS.	99
<i>yakā</i> , which (contemp.-obs.), RV. &c.	75, 86
- <i>yajūṣka</i> ifc. Bah. = <i>yājus</i> , ĀBr., in <i>a-y</i>	55
- <i>yantrika</i> ifc. Bah. = <i>yantrī</i> , Kāty Ār.	55
<i>yantraka</i> . <i>ikā</i> , tamer, subduer. Pañcav Br. < <i>yantrā</i> , fetter	51
<i>yamika</i> . du. n. of 2 Sāmāns ("Twins"), Ārṣ. Br.; SV.	92
<i>yaṣṭikā</i> . club, Kṛṣ. Up.	44
<i>yaska</i> . n. pr., Āçv. Ār. &c.; pl. his pupils or descendants	103
- <i>yācaka</i> . beggar, in <i>pura-y</i> , Māitr. Up.	97
- <i>yācanaka</i> , beggar, in <i>nitya-y</i> , Māitr. Up. < <i>yācana</i> , request	56
<i>yājaka</i> . sacrificing, Māitr. Up.	97
<i>yājuka</i> . sacrificing, ĀBr.	99
<i>yājñikā</i> , sacrificial, Ānkh Ār.; Kāuṣ.	94
—, a sacrificer, ĀBr.: Pār. Gr. 2. 6.	
<i>yādr̥cchika</i> , relating to or depending on chance (<i>yādr̥cchā</i>), Param. Up.	94
<i>yāmaki</i> , I go basely, Ānkh Br. < <i>yāmi</i>	84, 37
<i>yāyājuka</i> , constantly sacrificing, ĀBr.	25

(*yāskā*) patron < *yaska*.

yavāku, adj. of you two, RV. < *yuvā-* . . . 51, 30a Note

yuṣmāka, your, RV. < *yuṣmā-* . . . 51, 30a Note

-yūthika, in *a-y.*, not in the herd, < *yūthā*. Kāth Gr. 44a

= Mān. Gr. 2. 17 92

-yūška, in *vi-y.*, ifc. Bah., Hir. P. 55

-yonika, in *a-y.*, Bah., not containing the phrase *eṣā te yōniḥ*.

Kāty Çr. 55

-rajaska, ifc. Bah. = *rājas*, Nṛsut. Up. 55

-raçmika, ifc. Bah. = *raçmi*, Āçv. Gr. 55

rākā, full moon, RV. &c. Cf. *rā(i)*? 103

rājakā, king (contempt.), RV.¹ < *rājan* 71

rājasūyika, of the *rājasūya*-sacrifice, Çr. S. 94

rāsnākā, little girdle, Kāth 62

rūpakā, evil shape, AV.; (*-ka*) species, Māitr Up.; image.

Āit. Br. (= *rūpā*) 79, 44

recaka, expiration, Amṛt. Up., Dhyān. Up. 95

-retaska, ifc. Bah. = *rētas*, ÇBr. 55

rāivataka, n. of an ascetic, prob. patron. < *revata*. Jābāl Up. 49

rōcuka, causing pleasure, MS. 99

rodākā,—? Vāit. 58, 30 a

ropanākā, a certain yellow bird, thrush? RV., AV., TBr.

Origin obscure 58, 30 a

rohītaka, n. of a tree, MS.; Kāty Çr. Prob. < adj. *rōhita* 46

(*rāuhitaka*, made from the *rohītaka* tree, Kāty Çr.)

lambhaka, acc. to Wh. Vb. roots, found in Brāhmanas 96, 97

lambhuka, accustomed to receive. Chā. Up. (cf. *ulambhukā*) 99

lalātika, being on the forehead, Āp. Çr. 92

lāghavika, adj. < *laghava*, n.—Kāty Çr. 94

-lābhikā, in *su-l.*, easily won, RV.¹ (voc.) 16

lēka, n. of an Āditya, TS. Obscure 103

-lepaka, ifc. Bah. = *lepa*, Mukt. Up. 55

lokapālaka, earth-protector, Mahānār. Up. 44

-lōmaka or *lōmāka*, ifc. Bah. = *lōman*, TS.; ÇBr. &c. . . 55

lohītaka, red, reddish, Āp. 64

lohīnikā, red glow, Āp. Çr. < *lōhinī*, f. of *lōhita* 48

lāukika, worldly, usual, Kāty Çr.; Kāuç &c. 94

vajrasūcikā, n. of an Up. (also called *vajrasūcī*), "little

sharp needle," Mukt. Up. 62

vādhaka, sort of reed or rush, = *ghātaka*; AV.; ÇBr. &c. 46

vādhā- deadly weapon, destroyer &c.; cf. *ghāta-ka*.

- <i>vapāka</i> , ifc. Bah. = <i>vapā</i> , ÇBr.; Kāty Çr.	55
(<i>vābhruka</i> , v. l. for <i>bābhruka</i> , MS. 3. 14. 7.)	
<i>vamrakā</i> , "Antman," n. pr., RV., < <i>vamrá</i>	46
<i>vayākin</i> , RV. ¹ (of the soma plant): prob. "having little tendrils," (<i>vayāka</i> , dim. of <i>vayā</i> ; so Sāy. and Ludwig)	62
<i>varaka</i> , suitor, Çāṅkh Gr.	46
<i>varāhaka</i> , n. of an Up., Mukh. Up.	44
- <i>varṇaka</i> , ifc. Bah. = <i>vārṇa</i> , Gopī Up.	55
<i>vārtikā</i> , quail (ḍṛvḥ), RV. &c. (only RV. and Classical) (suffixal formation uncertain)	58
- <i>varṣika</i> , ifc. Bah. = <i>varṣā</i> (cf. <i>varṣin</i>), Āçv. Çr.	54, 55
<i>varṣika</i> , kind of meter, Nidānas.	46, 36
<i>vārṣuka</i> , raining, rainy, TS.; TBr.; ÇBr. &c.	99
<i>valika</i> , projecting thatch, Gāut.; reed, Kāuç. &c. < <i>vali</i> or <i>valī</i>	40
<i>valūka</i> , red or black, Pañc. Br.; Lāty &c. Obscure	58
<i>valkā</i> , tree-bark, TS.; TBr. <i>Vvr</i> ?	103
<i>valmīka</i> , ant-hill, VS.; TS.; ÇBr. &c.	62
<i>vasukā</i> , having or bestowing weal (<i>vāsu</i>), TS. &c.; in formula <i>vasukó'si vēṣaçrīr asi</i> &c.—Comm. <i>vāsayitr</i> , as if <i>Vvas</i> and <i>uka</i> , which is highly improbable	58
- <i>vastuka</i> , ifc. Bah. = <i>vāstu</i> , Gāudap.	55
<i>vasnikā</i> , prize, reward, Pañc Br. (<i>vasnikāṁ jayāya</i>). Comm. <i>vasnisamjñāṁ vasusambandhaṁ dhanasamūham</i>	53
<i>vahyaka</i> , draft-animal, Kāty Çr. 14. 231 (not 331 as BR.) Āçv. Çr. has in same passage <i>vahya</i>	44
- <i>vākkā</i> , ifc. Bah. = <i>vāc</i> , ÇBr.	55
<i>vācaka</i> , expressing, declaring, Rāmāp. Up.	97
<i>vājasaneyaka</i> , of or by Vājasaneyā, Kāty Çr. &c.	50
<i>vāmanaka</i> , dwarf, Garbh. Up.	62
<i>vāyovidyikā</i> , fowler, ÇBr.	94
- <i>vāraka</i> , keeping, guarding, Nṛsut. Up.	97
<i>vāruka</i> , choosing, MS.	99
<i>vāruṇapraghāsika</i> , adj., of <i>varuṇapraghāsā</i> , Āp. Çr.	94
<i>vārdhhuṣika</i> , usurer, Āp.	44
<i>vārṣaṇṭika</i> , bestowing life for 100 years, Kāuç.	94
<i>vārṣika</i> , of the rainy season, or year, AV.; VS.; ÇBr. &c.	94
<i>vālūkā</i> , sand, Çvet Up. Obscure	58
<i>vāsantika</i> , vernal, AV.; VS.; Āit. Br. &c.	94
<i>vāsuki</i> , (prob. patron.), n. of a Nāga, Gāruḍ. Up.; Gobh.; Kāuç &c.	78
<i>viḥkrndhikā</i> , croaking, acc. to Sch., Māitr. Up. Obscure	58

See §

<i>vika</i> , n. of a Sāman, Ārṣ. Br.	103
<i>vikalpaka</i> , hesitation, Tej. Up.	44
<i>vikasṇka</i> , "bursting", n. of Agni, AV.	99, 24
(vikusuka, corruption of <i>vikasuka</i> , n. of Agni, Āp. Ār.)	
{ <i>vikṣiṇatkā</i> , VS., ĀBr. } (cf. <i>āmivatkā</i> -) destroying,	
{(inferior) <i>vikṣiṇakū</i> , TS., Kāth } epithet of gods in Āta-	
rudriya; cf. following word, and see Weber, I St. II—43	42
<i>vicinvatkā</i> (in same passages as foregoing), discriminating	
see <i>vikṣiṇatkā</i>	42
<i>vināyaka</i> , n. of evil demons, Mān. Gr. < <i>vi-Vñ</i> . Cf.	
<i>vāināyaka</i>	96, 97
- <i>vibhaktika</i> , ifc. Bah. = <i>vibhakti</i> , declension, Tāṇḍ. Br. . . .	55
<i>vibhinduka</i> , "tearing," n. of an Asura, Pañcav Br. . . .	99
<i>vibhītaka</i> , a tree, ĀBr.; Kāty Ār.; its nut, used for dice,	
RV.	62, 79
<i>vimanyuka</i> , allaying wrath, AV.	56, 23
<i>vilāyaka</i> , soother, VS.—" <i>mānaso' si vilāyakah</i> "	96, 97
<i>viṣarika</i> , a certain disease, AV.	103
<i>viṣvaka</i> , all-pervading, Rāmāt. Up.; n. pr. (<i>viṣ</i> -) RV. &c. .	47
<i>viṣadhānaka</i> , poison-receptacle (imprec.), Mantra Br. . . .	79
<i>viṣāṇakū</i> , "little horn," n. of a plant, AV. (< <i>viṣāṇa</i>) . .	62
<i>viṣātakī</i> , a plant, AV.	79
<i>viṣuṇāk</i> , RV., in various directions	27
- <i>viṣuvatka</i> in <i>a-v</i> , ifc. Bah., Lāṭy	55
<i>viṣūcikā</i> , a certain disease, VS.; TBr. < fem. of <i>viṣvañc</i> .	79
<i>viṣphuliṅgakā</i> , little spark ?, RV.	71
<i>visālyaka</i> , Wh. <i>visālpaka</i> , a disease (= <i>visalyā</i>), AV. . . .	79
<i>visrāṇsikā</i> ,—(of unknown mg.), <i>visrāṇsikāyāḥ kāṇḍābhyah</i> ,	
Kāth; MS.; Āp. Ār.—In later times, n. of a plant	58
<i>vihvāraka</i> , tumbling, MS.	99
- <i>vīṇākā</i> , flute, in <i>godhā-vīṇ</i> , Kāty Ār.	44
<i>vīrakā</i> , male, Männchen, RV. (< <i>vīrā</i>)	88
<i>vṛkkū</i> , kidney, RV.; AV.; VS.; ĀBr. &c.	103
- <i>vṛttika</i> , ifc. Bah. = <i>vṛtti</i> , disposition, Mukṭ. Up.	55
<i>vṛthak</i> , easily, lightly, RV., cf. <i>vṛthā</i>	27
<i>vṛdhikā</i> , increaser, RV. (epithet of Indra. The context,	
and the correlation of this word with <i>suṣā</i> and <i>sudās</i> ,	
uphold Sāy.'s interpretation)	100
<i>vṛndāraka</i> , best of its kind, Brh. Ār. Up. Prob. conn. w.	
<i>vṛndā</i> - mass, crowd. Formation obscure	58
<i>vṛṣṇika</i> , scorpion, RV.; AV.	71, 79

<i>vr̥ṣaka</i> , n. of several Sāmans, SV.; Ārṣ. Br.	46
<i>véduka</i> , knowing, TS.; Kāth	99
<i>véduka</i> , obtaining, TBr.	99
<i>veṣkā</i> , noose, QBr.; Kāty Qr. See <i>bleṣka</i> &c.	103
<i>vēṣṭuka</i> , adhering, MS.	99
<i>vāikalpika</i> , optional, Āçv. Qr.	94
<i>vāitānika</i> , of the 3 sacred fires, Āçv. Gr.; Āçv. Qr.	94
<i>vāidika</i> , vedic, Māitr. Up. &c.	94
<i>vāināyaka</i> , of <i>Vināyaka</i> (a n. of Ganeça, as such first found Yajñ.), Sāmav Br.	—
<i>vāibhūta</i> , made from the <i>vibhūta</i> -tree, Kāth &c. (also- <i>daka</i>)	49
<i>vāilasthānakā</i> , abyss, pit (imprec.), RV. ¹	79
<i>vāiçeṣika</i> , special, peculiar, Āp.	94
<i>vāiçvadevika</i> , of the Vāiçvadevā Pārvan, Mān. Qr.; Çāṅkh. Qr.	94
<i>vyañjaka</i> , indicating, Nṛsut. Up.	97
<i>vyārdhuka</i> , being deprived of, Kāth; MS. &c.	99
<i>vyādhaka</i> , hunter, Kāuç	97
<i>vyāpaka</i> , Kāth. Up. &c., pervading, permeating	97
<i>vyāyuka</i> , running away, MS.; Kap. S.; Kāth	99
<i>-vyomnika</i> in <i>parama-vy.</i> , an inhabitant of highest heaven, Nrp. Up.	92
<i>vrātika</i> , adj. < <i>vratā</i> , Gobh.	94
<i>vleṣka</i> , see <i>veṣkā</i> &c. Brugm. thinks this is the original form	103
<i>çakuntakā</i> , <i>ikā</i> , birdlet (dim.-contemp.-obs.), (< <i>çakūnta</i>), RV. &c.	71, 86
<i>çāṅkhapulika</i> , n. of a Nāga, Gāruḍ. Up.	78
<i>çāṇḍika</i> , n. of a family or tribe, RV.—Sāy. says “descendant of Çāṇḍa” (an Asura priest, VS., MS.).— <i>çāṇḍa</i> as common n. “curds,” only Lexx.	92
<i>çanakāis</i> , very gently (dim.), RV.; Kāth; Māitr. Up.	65, 37
<i>çāphaka</i> , “little hoof,” n. of a plant. AV.; Āp. Qr. (< <i>çaphā</i>)	62
<i>çamakā</i> , a plant, Kāuç.	46
<i>çayāṇḍaka</i> , lizard, TS.—? <i>çayāṇḍa</i> acc. to Lexx.—“sleepy”	58
<i>çayāṇḍaka</i> , kind of bird, VS. Cf. foregoing. Perh. cpd.; <i>-aṇḍa(ka)</i> ?	58
<i>çarsikā</i> , kind of meter, Nidānas. Cf. <i>sarsikā</i> , a kind of meter, R. Prāt; etymologies of both words unknown	101
<i>çalākā</i> (<i>-ka</i> only Kāth 26.1), small stake, twig, TS., QBr. &c.	62, 29 c
<i>çalākakā</i> , twig (contempt.), AV. ¹	71

See §

- çálka*, splinter, TBr.; Āit. Br.; TS., cf. *çalá* 62, 29 b
- çályaka*, porcupine, VS.; Āit. Br.; Āp. 53
- (*çavartakā*, see *kūçarvataka*.)
- çaçaka*, hare (dim.?), Adbh. B. 62
- çākunika*, bird-catcher, Māitr. Up. 94
- çātyāyanaka*, the Br. of Çātyāyana, Āçv. Çr.; Lāty 50
- (*çāmāka*—wrong reading for *çyā*-, Kāuç.)
- çāriçākā*, AV.1, unexplained word. It may be a cpd., in which case the *-kā* would presumably be not suffixal 58
- çārīraka*, n. of an Up., Mukh. Up. 49
- çālūka*, a plant, said to be “an esculent lotus root,” AV.; Kāuç.—Doubtless conn. w. *çālu* (class.), a fruit (unidentified) 58
- çāçvatika*, eternal, Āp. 94
- (**çikhaṇḍaka*—mistake in NBD. for *çikhaṇḍā*—TS. 5.7.15.1)
- çipavitnukā*, kind of worm, AV. Etymology unknown 79
- çipiviṣṭakā*, smooth? TBr. < *çipiviṣṭā*, bald-headed 58
- çilaka*, n. pr., Chā. Up. 58
- çiçukā*, young (animal), AV. 63
- çītikā*, cooling, RV., AV. (voc.) 56, 19
- çīrṣāka*, ifc. Bah. = *çīrṣān*, TS. 55
- çīlīka*, ifc. Bah. = *çīla*, cf. *çīlin*, Gop. Br. 54, 55
- çulkā*, price, RV. Obscure. Primary? 103
- (*çuçulūkā*, a bird, RV.); Say. “owlet”; prob. for *çiçu-ulūka* —
- çūška*, dried up, RV., AV., ÇBr. &c. 103
- çrñkhānikā* (*çrñgh*-, *siñgh*-), mucus of nose, Āp. Uncertain.
- A word *çīnghāṇa* or *siñghāṇa*, of like meaning, is quoted in Lexx. 58
- çerabhaka*, n. of demons, AV.1 (voc.) 78
- çevrdhaka*, n. of demons, AV.1 (voc.) 78
- çāṇnaka*, n. of a Rishi, ÇBr. &c.—Supposed to be patron.
- < *çunaka*, and this < *çvān* 58
- çyāmāka*, millet, TS.: VS.: ÇBr. &c. 44, 30 a Note
- çyāvaka*, n. pr., RV. 64
- (*çlakṣṇaka*), *-ikā*, slippery (obscene), AV. 86
- çlōka*, sound &c., RV. &c. 103
- çvakiṣkin*, applied to demons, AV.1 Text and meaning uncertain; “having dogs’ tails”?—The word **kiṣka* is hopeless 103
- saṭka*, consisting of 6, Lāty; ifc. Bah. = *ṣas*, as *navasaṭka*, having nine sixes or hexads, Āçv. Çr. 53, 55

<i>śaḍviṇṇaka</i> , consisting of 26, Cūl. Up.	53
(<i>śāṇḍika</i>) n. pr., for <i>khāṇḍika</i> q. v., MS.	—
<i>śāṭhkāuṇika</i> , six-sheathed, Kāuṣ (reference not given; MW. Add.)	94
<i>śāḍahika</i> , of the <i>śaḍahā</i> -festival, Lāṭy	94
<i>śodaṣika</i> , of the 16-partite Stotra, Pañc Br. &c.	92
<i>saṁvartaka</i> , "destroyer," the great world-ending fire, Nṛp. Up.	97
<i>saṁvūka</i> , ifc. Bah. = <i>saṁvīd</i> , Nṛsut. Up.	55
- <i>saṁṣārūka</i> in <i>a-s.</i> , not breaking down, Kap. S.	99
<i>sāmsamaka</i> , united together, AV.	47
(<i>sakā</i> , see <i>takā</i>)	75
<i>saṁkalpaka</i> , determining, purposing, Amṛt. Up.	97
<i>sāṁkasuka</i> , n. of an Agni, AV.; Kāuṣ	99, 24
—adj.—splitting off, QBr.	
{- <i>saṁkhyaka</i> , ifc. Bah. = <i>saṁkhyā</i> , Mukt. Up.	55, 30 b
{- <i>saṁkhyāka</i> , ifc. Bah. = <i>saṁkhyā</i> , Mukt. Up.; Cūl. Up.	55, 30 a
<i>saṁjīvaka</i> , animating, Āṣv. Āp. Āp. Āp.	97
- <i>saṁjñaka</i> , <i>ikā</i> , ifc. Bah. = <i>saṁjñā</i> , Rāmāp. Up.; Māitr. Up.	55
<i>sātika</i> , TS. 4. 4. 6. 2.—Unknown mg. P. p. <i>sa-tika</i> . Comm.	
"water." Cf. <i>sārṇika</i> , with which this is closely connected in the text. Both words are obscure and perhaps artificial in formation	101
<i>sanakā</i> , old (imprec.), RV.	80
<i>saṁtanika</i> , n. of a Sāman, Ārṣ. Br. (v. l. <i>saṁtānika</i>)	44
- <i>saṁnyāsika</i> , ifc. Bah. = <i>saṁnyāsa</i> , cf. <i>saṁnyāsin</i> , Āṣram. Up.	54, 55
(<i>samanikā</i> , battle, RV. < <i>sāmana</i> , with - <i>ika</i> by analogy with <i>saṁikā</i> , q. v. Not real suffixal <i>ka</i> . Cf. also <i>astamikā</i> .)	—
<i>saṁārdhuka</i> , prospering, TS.	99
- <i>saṁitka</i> , ifc. Bah. = <i>saṁidh</i> , Kāuṣ	55
(<i>saṁikā</i> , battle, RV.; from wk. stem of <i>saṁnyānc</i> , cf. <i>prā-tika</i> &c.)	—
<i>saṁūhaka</i> , little broom, Āp. Āp. Āp. (NBD. "heap")	62
<i>sampātika</i> , n. of certain demons, Gobh. (MW.; no reference quoted)	46
<i>sampuṣka</i> , unground, Āp. Āp. Āp.—Comm. <i>akṣata</i> . Uncertain	103
<i>sarabhaka</i> , kind of grain-devouring insect, Adbh. Br.	79
(<i>sararūka</i> , see <i>salatūka</i> .)	
<i>sārṇika</i> , TS. 4. 4. 6. 2.—? Comm. "water;" see <i>sātika</i> . Perhaps <i>√sr</i> —? (BR. quote the reference as QBr. by mistake.)	101

<i>sarvaká</i> , all (imprec.), AV. (< <i>sárva</i>)	82
<i>salalúka</i> , RV. ¹ —? Sch. "aimless wandering," as if from <i>Vsr̥</i> , intens. + <i>-úka</i> (§ 25). So Grassmann. Nir. even makes up the word <i>sararúka</i> to explain it; but the true intens. stem of <i>Vsr̥</i> is <i>sarsr̥-</i> . Grif. "wavering;" Ludw. "club."	
The word is at present quite uninterpretable	58
<i>sāmvatsarika</i> , yearly, Āit. Br.; Qāṅkh Br. &c.	94
<i>sāmṇsaṅsika</i> , recited together, Gop. Br.; Vāit.	94
<i>sāmṇayika</i> , doubtful, Āp.	94
<i>sāmsiddhika</i> , natural, Gāudap.	94
<i>sāmsparśaka</i> , contact, Mān. Gr., Kāṭh Gr.	49
(<i>sākūm</i> , together, RV.; <i>Vsac̐</i> , cf. <i>sacā</i> , <i>sūci</i>)	
<i>-sākṣika</i> . ifc. Bah. = <i>sākṣin</i> , Māitr. Up.	55
<i>sāmgrāmika</i> , warlike, Kāuṣ.	94
<i>sāmghātika</i> , of a group, Qāṅkh Gr.	94
<i>sāttrika</i> , sacrificial, Kāuṣ.; Qāṅkh Br.	94
<i>sāttvika</i> , true, good, Māitr. Up.	94
<i>sādhaka</i> , accomplisher, Gāudap.	97
<i>sānuká</i> , eager for prey, RV. ¹ , cf. <i>sano-ti</i>	99
<i>sāmnāhuka</i> , able to bear arms, Āit. Br.; mistake for <i>-ika</i> (Class.) ?	21
<i>sāmnāha</i> , n., armor; the girding on of armor.	
<i>sāmnipātika</i> , complicated, coalescing, Lāṭy; Gobh. &c.	94
<i>sāptamika</i> , of the seventh day, Lāṭy	94
<i>sāptarātrika</i> , lasting 7 nights or days, Sāmavidh. Br.	94
<i>sāmavāyika</i> , inherent, concomitant, Kāty Gr.	94
<i>sāmāyācārika</i> , of usage or custom, Gāut.; Āp.	94
<i>sāmika</i> , adj., < <i>sāman</i> , Lāṭy	94
<i>-sāmidhenika</i> , ifc. Bah. = <i>sāmidhenī</i> , Qāṅkh Br.; Kāty Gr.	55
<i>sāmpātika</i> , of contiguous hymns, Āṣv. Gr.	94
<i>sāmpradāyika</i> , traditional, Rāmat. Up.	94
<i>sāyaka</i> , to be sent, RV.; n. arrow, RV.	16
<i>sāraka</i> , acc. to Wh. Vbl. roots found in Brāhmaṇas	96, 97
<i>sārvakāmika</i> , fulfilling every wish, Āṣv. Gr.; Qāṅkh Gr.	94
<i>sārvakālika</i> , of all time, Āp.	94
<i>sārvayajñika</i> , of all sorts of sacrifice, Qāṅkh Gr.	94
<i>sārvavarṇika</i> , of every kind, Āp. Gr.	94
<i>sārvavāidika</i> , of all the Vedas. Kāuṣ.	94
<i>sāvika</i> , adj. < <i>savá</i> , Vāit.	94
<i>-sāvitrika</i> , ifc. Bah. = <i>sāvitri</i> , Āṣv. Gr.; Pār. Gr.	55
(<i>sīṅghānikā</i> , v. l. for <i>ṣrñkh-</i> q. v., Āp.)	

- sidhṛaka*, made of the wood of the *sidhṛa*-tree, Kāty Gr. 47
śīlika- in *śīlikamādhyama*, RV.¹ Obscure word, commonly
 rendered "united, tied together" (*√śi*?) 58
(śūka, parrot, AV.; should be *śūka*. Non-suffixal *k*.)
(sūtūka, RV., running swiftly? Ludw. strong. Prob. non-
 suffixal *ka*. Uhlenbeck derives from *√tuk* in *toka*.)
sūbhadrīkā, courtesan, VS., < *sūbhadrā*, pleasant &c. 79, 67
sumēka, see *-méka*.
(suśīlīkā) kind of bird, VS., cf. MS. 3. 14. 17, same verse,
 which reads *çuṣulīkā*. Is this a later lectio facilior for
suśīlīkā, or is it the true reading, corrupted in VS?
 Other parallel texts have not the word 101
sūcīka, epithet of a stinging insect, RV. 62
sūtaka, birth, childbirth, Pār. Gr.; Āit. Br.; Kāuṣ &c. 48
sūtīkā, a lying-in woman, AV.; Qāṅkh Gr. (cf. *prasūtīkā*,
 = *prasūtā*) 51
(śṛkā, arrow, RV.) Non-suffixal *k*. Cf. Av. *harəko*, < *harec* 103
sevaka, worshipper, Rāmāp. Up. 97
sómaka, n. pr. RV., Āit. Br. < *sóma*, cf. § 57 57, 58
sāṅgandhika, kind of unguent; Tāṇḍ Br. 94
sāutrāmaṇika, of the *sāutrāmaṇi*-sacrifice, QBr. 94
sāumika, of the *sóma*, Āçv. Gr.; Qāṅkh Gr. &c. 94
sāūrāki, a patronymic, MS.; Kāth.—From **sura* or **suraka*,
 presumably. Exact formation not certain 58
(stuka, child = *toká*, TĀr. 3. 11. 12. The text is difficult
 and corrupt, and *-ka* probably not suffixal.)
stūkā, tuft of hair, RV. &c. 42, cf. 103
stoká, drop, RV. &c. (*prastoká*, n. pr. RV.) 103
stāubhika, forming or containing a Stobha, Lāty 94
sthāyuka, staying, Pañc. Br. 99
snātaka, a *grhastha*. QBr.; Gobh. &c. 46
-snāvāka, ifc. Bah. = *snāvan* (*-vān*), TS. in *a-s*. 55
sphaṭika (*sphāt-*), crystal, quartz, Qvet. Up. Uncertain . 103
-sphāka in *pīvah-sphākā*, swelling with fat, AV. 103
sphūrjaka, n. of an ill-omened plant, QBr.; Kāty Gr. 79
svaka, own, Māitr. Up.; Muk. Up. 45
(svapāka? epithet of Agni, RV.¹—BR., following Sāy., say
 < *su-apás*, "Gutes bewirkend," "Kunstreich." Improbable.
 Others—< *su-ápānc*. The word is very doubtful; on the
 whole perhaps Ludwig's suggestion is best, *sva-pāka* (*√pac*)
 = "self-ready". Non-suffixal *ka* in any case, probably.) —

	See §
<i>svalpikā</i> , very tiny (obs.), AV. Cf. <i>alpakā</i>	86
<i>svastika</i> , a mode of sitting (in the shape of a <i>svastika</i> , which is by origin adjectival, = "lucky, bringing luck"), Amṛt.Up.	51
<i>svābhāvika</i> , natural, inherent, Āp.; Māitr. Up. &c.	94
<i>svārasāmika</i> , adj. < <i>svārasāman</i> , Lāṭy	94
(<i>svēka</i> , artificial word, to explain <i>sumēka</i> , QB.)	
<i>hāriknikā</i> , bay-mare (dim; obs.?), AV.; < fem. of <i>hārita</i>	86
- <i>hastaka</i> , ifc. Bah. = <i>hāsta</i> , Çāṅkh. Gr. (in <i>apa-h.</i>)	55
- <i>hastika</i> , ifc. Bah. = <i>hastin</i> , TB. (in <i>bahu-h.</i>)	55
<i>hāṭaka</i> , gold, Param. Up.—Uhlenbeck: < IE. <i>ghol-</i> (<i>hari</i> &c.) + <i>to-</i> (cf. OSl. <i>zlato</i> . Gth. <i>guld</i> , gold) + <i>ka</i> .—* <i>hāṭa</i> is not found	58
<i>hāruka</i> , seizing, consuming, TS.	99
<i>hāviryajñika</i> , adj. < <i>hāviryajñā</i> , Lāṭy	94
<i>hiṁsaka</i> , injuring, Māitr. Up.	97
- <i>hetuka</i> , ifc. Bah. = <i>hetú</i> , Gāuḍap.	55
<i>hāimantika</i> , wintry, VS. &c., < <i>hemantá</i>	94
<i>hótṛka</i> , assistant <i>hótṛ</i> , QB., Lāṭy	66
<i>hotraka</i> , a priest at the sacrifice, Āit. B.	51
(Orig. adjective, "connected with the <i>hotrá</i> .")	
<i>hāutrika</i> , sacerdotal, Kāty Gr.	94
<i>hlādikā</i> , refreshing, RV.	56, 19
<i>hlādukā</i> , refreshing, TĀr.; see § 19	99, cf. 19
<i>hlīka</i> , modest, TBr. ("possessing * <i>hlī</i> = <i>hri</i> ")	53

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Index and Word-list (Vedic Words).

The Mayūrāṣṭaka, an unedited Sanskrit poem by Mayūra.

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WHAT little knowledge we have of the poet Mayūra rests largely on legend and tradition, but it is now generally accepted that he flourished in the seventh century of our era, was one of the *habitués* at the court of the emperor Harṣavardhana, and was the rival, in the field of literature, of Bāṇa, author of the *Kādambarī* and of the *Harṣacarita*.

In an old legend, preserved principally in Jaina tradition, and existing in several versions,¹ we are told that Mayūra, on one occasion, wrote a licentious description of the charms of his own daughter, Bāṇa's wife. That lady, enraged, cursed her father, who, in consequence of the curse, became a leper, and was banished from court. Nothing daunted, however, he set to work to regain his health and his lost position, and composed the *Sūryaśataka*², consisting of a hundred stanzas in praise of Sūrya, the sun-god. At the recitation of the sixth stanza, the sun appeared in bodily form, and cured the poet of his leprosy. Bāṇa, jealous of Mayūra's triumph, and seeking

¹ The principal versions of this legend are found in two anonymous commentaries on the Jaina poet Mānatuṅga's *Bhaktāmarastotra*, in Madhusūdana's commentary on Mayūra's *Sūryaśataka*, and in the *Prabandhacintāmaṇi* of Merutuṅga, who was a Jaina. For the anonymous commentaries on the *Bhaktāmarastotra*, see F. E. Hall, *Subandhu's Vāsavadattā*, Calcutta, 1859, intro. pp. 7, 8, 49, and Rājendralāla Mitra, *Catalogue of Sanskrit Manuscripts in the Library of His Highness, the Mahārāja of Bikaner*, Calcutta, 1880, p. 671, no. 1463, and Bühler, *On the Candikāśataka of Bāṇabhaṭṭa*, *Indian Antiquary*, vol. 1 (1872), pp. 111—115; for the commentary of Madhusūdana, see Bühler, *On the Authorship of the Ratnāvalī*, *Indian Antiquary*, vol. 2 (1873), pp. 127—128; and for the *Prabandhacintāmaṇi*, see the translation of that work by C. H. Tawney, Calcutta, 1901, pp. 64—66.

² This is Mayūra's best-known work. The most accessible edition is that in *Kāvya-mālā* Series, no. 19, Bombay (2nd ed.), 1900.

to emulate his example, had his own hands and feet cut off, and then composed the *Caṇḍīsataka*¹, in honor of Caṇḍī, the wife of Śiva. But in the recitation of his poem, he did not have to proceed any further than the sixth syllable of the first stanza before the goddess appeared and restored his limbs to their former condition. Now it happened that a Jaina, Mānatuṅga, was present, and wishing to show that the Jainas were not lacking in miracle-working powers, he ordered himself to be loaded with forty-two chains², and to be locked up in a room. He then began to compose the *Bhaktāmarastotra*³, which consists of forty-four stanzas. At the conclusion of each stanza, one of the forty-two chains dropped off, and when the whole forty-four stanzas had been recited, the locked doors flew open of their own accord, and he was free. The king, Harṣa (or Bhoja, as some accounts call him), had witnessed all three miracles, but deciding that Mānatuṅga's was the greatest, he became a convert to Jainism.

In one version of the legend, that, namely, given by the first anonymous commentator on the *Bhaktāmarastotra*, the name of the obnoxious poem that so displeased Mayūra's daughter, and that brought upon Mayūra the curse of leprosy, is said to be the *Mayūrāṣṭaka*. While recently working up the life and writings of Mayūra for a forthcoming volume of the Columbia University Indo-Iranian Series, I noted that a poem of this name was recorded in Professor Garbe's catalogue⁴ of the Sanskrit manuscripts at Tübingen University. Through the kindness of Professor Garbe and of Dr. Geiger, the librarian at Tübingen, the manuscript containing the *Mayūrāṣṭaka* was forwarded to Professor Jackson for my use. The material is birch-bark, folded in book form, each leaf being 7⁵/₈ by 6³/₈ inches, with 16 lines of writing to a full page. The writing is in the *śaradā* script.

¹ Ed. with commentary, in *Kāvya-mālā* Series, Part 4, Bombay (2nd ed.), 1899.

² Other accounts say 34 or 48 chains; cf. Hall, op. cit. pp. 8, 49.

³ Edited (transliteration and translation) by Jacobi, *Indische Studien*, vol. 14, Leipzig, 1876, pp. 359—376, with forty-four stanzas. Ettinghausen, *Harṣa Vardhana, Empereur et Poète*, Louvain, 1906, p. 127, n. 2, mentions several editions, one containing 48 stanzas.

⁴ Richard Garbe, *Verzeichniss der indischen Handschriften der königlichen Universitäts-Bibliothek*, Tübingen, 1899, no. 182, F.

and the date should probably be placed in the seventeenth century.¹

The *Mayūrāṣṭaka*, which covers one full leaf, and parts of two other leaves, consists, as its name implies, of eight stanzas. Of these, the first and the sixth are incomplete, owing to a tear in the manuscript. Stanzas 1, 2, and 4 are in the *śraṅgharā* meter, the others in *śārdūlavikrīḍita*. The dedication is to Hari and Hara (Viṣṇu and Śiva), and at the end is the colophon *iti śrīmayūrāṣṭakam samāptam*. After the colophon comes a kind of diagram, which may be something astrological, though I have been unable to decipher anything from it except the words *saṃvat 2*.

The theme of the poem is the description of a girl or young woman, and at times, especially through the *double entendres* and puns, the sentiment is decidedly erotic, and might very well have given offence to the person portrayed. In a general way the style is not unlike the style of other compositions ascribed to Mayūra. For example, the puns and *double entendres*, already referred to, besides other Kāvya elements,

¹ The ms. in Garbe's *Verzeichniss* (see note preceding) 182 F was one of those purchased in 1894 by Marc Aurel Stein at Śrīnagar in Kāśmīr (*Verzeichniss*, p. 3), and the date is according to the Saptarṣi era (*ibid.*, p. 5, n. 1; personal letter from Prof. Garbe, April 4th. 1911). "At the end of the *Durgāṣṭaka* [one of the pieces in the collection contained in the manuscript in question] the copyist gives the date (*lāukika*) *saṃvat 87, grāvatī 5, gaṇāu*" (Stein in Garbe, *Verzeichniss*, p. 78), and, as Prof. Garbe writes me, "die Ähnlichkeit der äußeren Beschaffenheit aber zeigt, daß die beiden darauf folgenden Stücke [*Vetālastotra, Mayūrāṣṭaka*] in annähernd derselben Zeit geschrieben sein müssen".

The Saptarṣi era began B. C. 3076 (Bühler, in Weber, *Indische Studien*, vol. 14, Leipzig, 1876, pp. 407—408). During the centuries which, in consideration of the average age of birch-bark manuscripts (see Bühler, *Indische Palaeographie*, Straßburg, 1896, p. 88), can alone be here taken into account, the fifth of Śrāvana fell on Saturday in the year 87 of any century of this Saptarṣi era only in 4687 and 4487 — Saturday, Śrāvana 5, 4687 corresponding to Aug. 13. 1611 (Gregorian calendar), and Saturday, Śrāvana 5, 4487 to July 25. 1411, of the Julian calendar (as reckoned according to Robert Schram, *Kalendariographische und chronologische Tafeln*, Leipzig, 1908). Since of these two dates the former is the more likely, we may ascribe the completion of our manuscript to Aug. 13. 1611. (On the Saptarṣi era, see Sewall and Dikshit, *The Indian Calendar*, London, 1896, p. 41; Ginzel, *Handbuch der mathematischen und technischen Chronologie*, Leipzig, 1906, vol. 1, pp. 382—384; A. Cunningham, *Book of Indian Eras*, Calcutta, 1883, pp. 6—17.)

are common to it and to the *Sūryaśataka*, and that Mayūra did not disdain the erotic sentiment elsewhere is shown by a perusal of the descriptive verse on two asses, which is found under his name in the *Subhāṣitāvali* of Vallabhadeva, and also in the *Śārngadhara-paddhati*.¹ It may count for something, too, that the meter of three of the stanzas is the *sragdharā*, the same as that in which the *Sūryaśataka* is composed, as well as most of the anthology stanzas attributed to Mayūra.

In view of all the facts and circumstances as set forth, it seems not unreasonable to believe that the poem *Mayūrāṣṭaka*, contained in the Tübingen manuscript, is a creation of the poet Mayūra, although it must be acknowledged that the evidence is not especially strong. It may be argued, for example, that the name *Mayūrāṣṭaka* may mean "the *aṣṭaka* on the peacock", or that the commentator on the *Bhaktāmara-stotra* ascribed it to Mayūra merely because of its name, or that it is the composition of another Mayūra, not the seventh-century poet of that name.

But on the other hand stand the facts that the name *śrī-mayūrāṣṭakam* is found in the colophon of the manuscript, that the subject-matter of the manuscript poem harmonizes with the content of the *Mayūrāṣṭaka* described by the commentator, that there is not the faintest allusion to a peacock in any of the stanzas, and that there is a general similarity in point of style between the manuscript poem and the known writings of Mayūra. The *pros* are, on the whole, stronger than the *cons*, and it can at least be said that there is no direct evidence to show that Mayūra did not write the *Mayūrāṣṭaka* contained in the Tübingen manuscript. Until such evidence is adduced, I am inclined to accept it as his work.

It gives me pleasure to express my thanks to Professor Jackson and to Dr. Gray for many valuable suggestions, and also to Professor Barret, who was good enough to verify my transliteration of the *śāradā* script.

¹ Peter Peterson, *The Subhāṣitāvali of Vallabhadeva*, Bombay, 1886, no. 2422; Peterson, *The Padhātī of Śārngadhara*, Bombay, 1888, no. 585. See also the modern anthology. *Subhāṣitaratnabhāṇḍāgāraṃ*, compiled by K. P. Parab, Bombay (3rd ed.). 1891, p. 327, v. 17.

MAYŪRĀṢṬAKA.

Verse 1.

om namaḥ śrīharīharābhyām

eṣā¹ kā prastutām²gi pracalitanayanā haṃsalīlā³vrajanti
 dvāu hastāu kuṅkumārdrāu kanakaviracita⁴... ū
 ..⁵ūṃ[gām]gegatā sā bahukusumayutā baddhaviṇā hasanti
 tāmbūlaṃ⁶ vāmahaste⁷ madanavaśagatā gūhya⁸ śālāṃ praviṣṭā⁹

¹ The meter is *sragdharā*.

² In the matter of transliterating the nasals, I have faithfully followed the manuscript, which is inconsistent, sometimes writing *anusvāra* instead of the appropriate nasal consonant. Compare, for example, *lag-nāṃga* (2a), *prīyāṃga* (3d), and *gaganāṃganā* (8d), with *bhrūbhaṅgam* and *anaṅga* (7b). Note also *aṃtaḥ* for *antaḥ* (3c). *caṇpaka* with lingual nasal, instead of *campaka* (8b), and *saṇpakva* for *sampakva* (5b). In the use of the nasal before *k*, there appear to be no irregularities except *śaṃkayantī* for *śaṅkayantī* (2b); cf. *kuṅkuma* (1b), and *paṅka* (7c).

³ The word *līlā* is one of the stock terms used to define the natural graces of the heroine; cf. *Daśarūpa, a Treatise on Hindu Dramaturgy*, tr. Haas, New York, 1911. 2.60, "Sportiveness (*līlā*) is the imitation of a lover in the actions of a fair-limbed maiden."

⁴ One, possibly two consonants must come between the *a* and the *ū*; the syllable containing the *a* must be heavy, and six syllables must be supplied after the *ū*.

⁵ One syllable is missing.

⁶ Betel was as much an adjunct of love-making among the ancient Hindus as candy and confections are to-day. Usually it was brought by the man to the girl, but here the girl appears to be carrying it as a gift to her lover; cf. Schmidt, *Beiträge zur indischen Erotik*, Leipzig, 1902, p. 728.

⁷ Was the left hand the erotic one, as implied, for example, in the epithet "left-handed", when used to denote the obscene form in the Tantra cult?

⁸ I take *gūhya* to be a gerund (cf. Whitney, *Skt. Grammar*, 992 c), but the author doubtless intended that it should be read also, though with short *u*. as first member of a compound with *śālāṃ—gūhyaśālāṃ*, "private chamber"; cf. *gūhyadeśan* (4d).

⁹ In *śāradā*, the same ligature represents both *ṣṭa* and *ṣṭha*. Prof. Barret, who has transliterated part of the Pāippalāda Manuscript of the Atharvaveda, which is in *śāradā* (cf. JAOS. vol. 26, 2nd part, pp. 197—295), writes me: "about *ṣṭa* and *ṣṭha*; as far as I have seen, there is no difference made, the same sign serving for both."

Translation.

Om. Reverence to the illustrious Hari and Hara.
 Who is this (maiden), with beautiful limbs and wandering
 glance, approaching with the gait of a *hamsa*?
 Her two hands are moist with saffron, her..... composed of gold.

 She has.....on her [body]; she is decked with many flowers.
 girt with a lute, and is smiling.
 Concealing betel in her left hand, and having yielded to the
 power of love, she enters the [private] chamber.

Verse 2.

esā¹ kā bhuktamuktā pracalitanayanā sveda²lagnāṃgavastrā
 pratyūṣe yāti bālā³ mṛga iva cakitā sarvataś śaṃkayanti
 kenedaṃ vaktrapadmaṃ sphuradadhararasam śatpad⁴enāiva
 pītaṃ
 svargaḥ⁵ kenāḍya bhukto haranayanabato manmathaḥ⁵ kasya
 tuṣṭaḥ

Translation.

Who is this maiden that, not partaking of food and with
 wandering glance, and with garments clinging to her
 limbs with perspiration.

¹ The meter is *sragdharā*.

² For perspiration as a mark of love, see Sappho, frag. 2, v. 4, ἀ δὲ
 μ' ὄρωσ καυχέται.

³ In erotics, *bālā* means a young girl under sixteen, who wishes to
 be loved in darkness, and delights in betel (Schmidt, pp. 243—246;
 especially the citation (p. 244) from *Anaṅgaraṅga*, fol. 5 b). She is also
 a *mṛgī*, "gazelle" (cf. *mṛga* 2 b, and *hariṇī* in 3 b and 8 c), so eats little
 (cf. *bhuktamuktā* in 2 a), and has high-set (*unnata*) breasts, cf. Schmidt,
 pp. 212—213.

⁴ *Śatpada* suggests *bhramara*, which means both "bee" and "lover".

⁵ In the ligature here transliterated by *hk*. I have taken the first
 element to be the sign for *jīhvāmūṭiya*, the surd guttural spirant, cf.
 Whitney, *Skt. Grammar*, 69, 170 d, 171 c. Prof. Barret, however, in his
 transliteration of the Pāippalāda Manuscript of the Atharvaveda, adopted
ṣk as the transcription of the character; compare, for example, JAOS.
 vol. 26, 2nd part, New Haven, 1906, p. 218 foot, v. 18, *raṣ kāmā*, and
 p. 224 foot, v. 25, *jātaṣ kasyapo*, with the Pāippalāda facsimiles, folios
 6 a, line 3, and 7 b, line 12, respectively. But he has since written me:
 "The signs which I transliterated *ṣka* and *ṣpa* are not exactly represen-
 tatives of lingual *ṣ*, but that seemed the best rendering."

At dawn goes here and there, timid [and] distrustful, like a gazelle?

How is this? Has this lotus face with its lower lip's welling nectar, been sipped by a bee?

By whom has heaven been enjoyed to-day? With whom has Kāma, [once] slain by Śiva's eye, been pleased?

Verse 3.

eṣā¹ kā stanapīnabhārakaṭhīnā² madhye daridrāvati³
vibhrāntā hariṇī⁴ vilolanayanā saṃtrasta⁵yūthodgatā
amtaḥsv(e⁶)dagajendraganḍagalitā⁷ saṃlīlayā⁸ gacchati⁹

¹ The meter is *śārdūlavikrīḍita*.

² Perhaps, "stiff with the burden of her swelling breasts"; i. e. she must walk very upright, or the weight of her breasts would make her stoop-shouldered.

³ There may be an obscene pun in *madhye daridrāvati*; for the passionateness of the *mrgī*, see Schmidt as cited p. 348, note 3. For *daridrāvati*, not found in the lexicons, cf. Whitney, *Skt. Grammar*, 1233 d.

⁴ For *hariṇī*, "gazelle", see *mrgī*, p. 348, note 3.

⁵ The reading of the manuscript is *saṃtrastha*.

⁶ The manuscript is broken above the *sv* ligature, but the restoration of the *e* is unquestionably correct.

⁷ According to folk-belief, even in modern India (cf. W. Crooke, *The Popular Religion and Folk-Lore of Northern India*, 2nd ed., Westminster, 1896, vol. 2, p. 240), there is, in the forehead of an elephant, a magic jewel, the *gajamukta*, which grants to him who possesses it his every wish. The author seems here to be comparing his heroine to this magic jewel.

⁸ I have rendered *saṃlīlayā* as "like"; cf. St. Petersburg Wörterbuch, unabridged ed., s. v. *līlā*, 3. The compound of *līlā* and *saṃ* is not found in the lexicons, but occurs twice in this poem; cf. 8c.

⁹ The whole of line 3 may be read with a second rendering, containing an obscene pun: "She goes, possessed, through her wanton sport with [her lover], of that which falls from the temple of the rutting lord of elephants," i. e., possessed of the *mada*, which also means *semen virile* and *ἀφοδία ροτῆς*; this latter, in the case of the *mrgī*, has the odor of flowers (Schmidt, p. 213), and would therefore attract bees (or lovers; cf. p. 348, n. 4), just as the *mada* of a must-elephant does. [Prof. Jackson takes this second rendering to be the correct interpretation, as opposed to that presented in the text and in notes 7 and 8.]

dr̥ṣṭvā rūpam idaṃ priyāṃgagahanam¹ vṛddho² (')pi kāmāyate³

Translation.

Who is this timid gazelle, with a burden of firm, swelling breasts,
With roving glance, and slender of waist, gone forth from the frightened herd?
She goes like as she were fallen from the temple of a rutting lord of elephants.
Seeing this form, with its adornment of beautiful limbs, even an old man becomes a Kāma.

Verse 4.

vāmenāveṣṭayantī⁴ praviralakusumaṃ keśabhāraṃ kareṇa prabhraṣṭaṃ cottariyaṃ ratipatitagunāṃ mekhalāṃ dakṣiṇena tāmbūlaṃ codvahanṭi vikasitavadanā⁵ muktakeśā narāgā⁶ niṣkrāntā guhyadeśān madanavaśagatā mārutaṃ prārthayanti

Translation.

With her left hand doing up her heavy hair, on which few flowers [now remain],
And with her right holding up her upper garment, her girdle, whose cord had slipped down

¹ The compound *priyāṃgagahanam* may be read in two ways. In the first way, take *gahanam* as from *gahanā*, "adornment", and the second reading, which is obscene, may be found by taking *gahanam* as "place of concealment", and *priyāṃga* as a *tatpuruṣa* compound, *priya* denoting the lover.

² Is *vṛddho* a reference to Bāṇa, the husband of Mayūra's daughter? Bāṇa may have been of the same age as Mayūra, and so considerably older than his wife.

³ The regular causative of the root *kam* is *kāmāyate*. I therefore take *kāmāyate* to be a denominative from *Kāma*; cf. Whitney, *Skt. Grammar*, 1059c, and Brugmann, *Vgl. Gram. der idg. Sprachen*, Straßburg, 1892, 2. 769 (p. 1107). The meter requires that the second syllable of *kāmāyate* should be long.

⁴ The meter is *sragdharā*.

⁵ "With blooming face", or, punningly, "with open mouth", "yawning".

⁶ The word *narāgā* is not found in the lexicons, but on the analogy of *naroga*, "not ill", I have taken it to mean "not passionate", i. e., "with passion sated".

During love, and her betel; with blooming face, with disheveled hair, with passion sated,
Coming forth from the private chamber, having yielded to the power of love, she longs for the breeze.

Verse 5.

eṣā¹ kā navayāuvanā śaśimukhī kāntāpathī² gacchati
nidrāvyaṅkulitā vighūrṇanayanā sampakvabimbādhara
keśair vyākulitā nakhair vidalitā³ dantāis ca khaṇḍīkṛtā⁴
kenedaṃ ratirākṣasena ramitā śārdūlavikrīḍitā

Translation.

Who is this lovely one advancing along the path, moon-faced,
in the bloom of youth,
Bewildered with sleep, her eye rolling, her lower lip like a
ripe *bimba* fruit,
Bewildered by her [disordered] locks, scratched by finger-nails,
and torn to pieces by teeth?
How is this? By a demon in love has she, imitating tiger-
sport, been beloved!

¹ The meter is *śārdūlavikrīḍitā*. Note the pun possibly implied in *śārdūlavikrīḍitā*, line 4.

² I resolve as *kāntā āpathī*. Compare the Vedic *āpathī* (RV. 1. 64. 11), which evidently means, as Geldner (*Der Rig-Veda in Auswahl*, Stuttgart, 1909, vol. 2, p. 11) says, "auf der Straße fahrend" (cf. also Bezzenberger, in *Ēpas, Abhandlungen zur idg. Sprachgeschichte Aug. Fick gewidmet*, Göttingen, 1903, pp. 175—176), a connotation which is also supported by Sāyaṇa's commentary *ad loc.* Or, perhaps we should read *kāntā pathī*, with *pathī* as fem. nom. sing. of **patha* (**pathi*), with which compare the epithets of the Maruts—*āpathi*, *vipathī*, *antaspātha*, *anupātha*, RV. 5. 52. 10; yet note *tripathā*.

³ The manuscript reads *vimḍalitā*.

⁴ References to scratching and biting, as concomitants of indulgence in *rati*, are found throughout Sanskrit erotic literature. For *nakha-cchedya* (scratching with the nails), see Schmidt, pp. 478—496, and for *daśanacchedya* (biting with the teeth), *ibid.* pp. 496—508. Is there not also in *khaṇḍīkṛtā* a possible punning allusion to the *khaṇḍābhṛaka* ("broken-cloud") bite on the breast, in form of a circle, with uneven indentures from the varying size of the teeth (Schmidt, p. 504)? The reference to his daughter's disheveled appearance, as being due to the scratches and lacerations, may have been responsible for that lady's anger and her consequent curse of Mayūra (see intro.). And in this connection it may be added that the obscene puns in verse 3 would probably not tend to lessen her displeasure.

Verse 6.

eṣā¹ kā paripūrṇacandravadanā gāurimṛgā² kṣobhinī³
 līlāmatṭagajendrahamsagamanā⁴ e . .
 n(i)⁵hśvāsādliaragandhaśīṭalamukhī vācā mṛdūllāsini
 sa ślāghyaḥ puruṣaḥ sa jīvati⁷ varo yasya priyā hidṛśi

Translation.

Who is this frantic tigress, with a face like the full moon,
 With the gait of the *hamsa*, or of the lordly rutting elephant
 in wantonness ,
 With her face cooled by the perfume of her sigling lower lip,
 and gently mirthful in her speech?
 That man is to be envied, that lucky one lives, who has truly
 such a one as his beloved.

Verse 7.

eṣā³ kā jaghanasthālī sulalitā⁹ pronmattakāmādhikā

¹ The meter is *śārdūlavikrīḍita*.

² I take *gāurimṛgā* to mean "beast of Gāurī" (with a pun on *mṛgā* [cf. note on *mṛgī*, p. 348, n. 3] as the sort of girl the heroine is), and the beast of Gāurī (in her incarnation as Durgā) is the tiger. As Pārvatī also, Gāurī's vehicle is the tiger; cf. Moor, *Hindu Pantheon*, London, 1810, plates 20, 21, 24. My interpretation as "tigress" seems also to be strengthened by the allusion to "tiger-sport" in the last line of the preceding stanza.

³ The word *kṣobhinī* is not recorded in the lexicons except with lingual nasal as the name *kṣobhinī*, of a certain *śruti* in *Samgītasāra-saṃgraha*. 23 (cf. St. Petersburg Wörterbuch, abridged ed., s. v. *kṣobhinī*); it is here probably best regarded as the feminine of *kṣobhaṇa* or of **kṣobhin*.

⁴ In Manu, 3. 10 (*haṃsavāraṇagāminīm*), the gaits of the *hamsa* and of the elephant are mentioned as among the desirable graces of women.

⁵ Seven syllables are needed to fill out the line.

⁶ The manuscript is broken here, but part of a vertical stroke can be seen, and the restoration of an *i* seems certain.

⁷ The manuscript reads *jīvatiḥ*. For the sentiment expressed in *jīvati* compare the well-known line of Catullus (5.1), *Vivamus, mea Lesbia, atque amemus*.

⁸ The meter is *śārdūlavikrīḍita*.

⁹ *Lalita* is one of the stock terms used to define the graces of the heroine; cf. *Daśarūpa*, tr. Haas, 2.68, "Lolling (*lalita*) is a graceful pose of one of fair form."

bhrūbhaṅgaṃ kuṭilam tv anaṅgadhanuṣaḥ¹prakhyam prabhā-
candravat²

rākācandrakapolapaṅkajamukhī kṣāmodarī sundarī

viṇīdaṇḍam³ idaṃ vibhāti tulitam⁴ veladbhujam⁵ gacchati

Translation.

Who is this lovely one that goes, with rounded hips, with
an excess of ecstatic love—

Her curving frown like the bow of the Bodiless (Kāma), and
like the moon in splendor—

With lotus face like the cheek of the full moon, and she
[herself] slender-waisted and beautiful?

This neck of her lute seems like a raised quivering arm.

¹ In the ligature here transliterated by *hp*, I have taken the first element to be the sign for the *upadhmānīya*, or surd labial spirant; cf. Whitney, *Skt. Grammar*, 69, 170d. 171c. In Prof. Barret's transliteration of the Pāippalāda Manuscript, this same ligature is transcribed by *sp* (cf. JAOS. vol. 26. 2nd part. New Haven, 1906. p. 213 foot. *devāṣ pitaro*. and *vaṣ pari*., with the Pāippalāda facsimiles. folio 4b. lines 11 and 12), though Prof. Barret says (see above, p. 348, n. 5) that it does not exactly represent *sp*. If the word *dhanuṣaḥprakhyam* be regarded as a compound, we should naturally expect the dental sibilant before initial *p*, as is the case, for example, in such a word as *vācaspati* (cf. Whitney, *Skt. Gram.* loc. cit.), yet, in favor perhaps, of its being so regarded, it may be noted that above (stanza 6d) we have *ślāghyaḥ puruṣas*, which cannot be a compound, with *visarga* before initial *p*. However, it should be remarked that the Pāippalāda Manuscript, before initial *p*, seems to use, indifferently, either *visarga* or the ligature under discussion; cf. the instances given above with folio 6a. line 7. *devāḥ pradīśā*, and folio 7a. line 5. *nīrtyāḥ pāśebhyo*.

² The accusatives in line 2 are hard to explain, unless they may possibly comprise an extension of the simple adverbial accusative, on which see Carl Gaedicke. *Der Accusativ im Veda*, Breslau, 1880. pp. 171—175, 215—233. Or perhaps *bhrūbhaṅgaṃ* is to be regarded as neuter (cf. note on *bhuja* below), though it is not found as neuter elsewhere. If it is neuter, it probably becomes the subject of an *astī* understood.

³ The form *viṇīdaṇḍa* is not given in the lexicons; the regular spelling is *viṇādaṇḍa*, though the word is given only by the lexicographers, and is not found in the literature.

⁴ In *tulitam*, the manuscript shows only the upper part of the *i*, the vertical stroke being missing.

⁵ *Bhuja* is not found as neuter elsewhere, but for neuters of this class of compounds (including *viṇīdaṇḍam*), see Wackernagel, *Altindische Grammatik*, Göttingen, 1905, II. 1. 15b (p. 39); and on the interchange of masculine and neuter (cf. *daṇḍaḥ* and *daṇḍam*), see Delbrück. *Vgl. Synt. der idg. Sprachen*, Straßburg, 1893, 1. 37 (p. 130).

Verse 8.

eṣā¹ kā ratihāvabhāva²vilasaccandrānanam bibhrati
 gātram canpakadāmagāurasadr̥ṣam³ pinastanālambitā
 padbhyām samcarati pragalbha⁴hariṇi saṃlīlayā svecchayā
 kiṃ cāiṣā gaganāṃganā bhuvitale sampādītā brahmaṇā
 iti śrīmayūrāṣṭakam samāptam

Translation.

Who is this with a face like the shining moon through her
 <incitement to> and her <state of> amorousness,
 Drooping from [the weight of] her full-rounded breasts, with
 a body like the yellowness of a garland of cham-
 paka flowers,
 A wanton "gazelle", going on two feet, in dalliance as she
 feels?
 Surely this is a celestial nymph, produced on earth by Brahmā.
 Here ends the illustrious *Mayūrāṣṭaka*.

¹ The meter is *śārdūlavikrīḍita*.

² I have rendered *bhāva* in two ways, "incitement to" and "state of".

³ The manuscript reads *māurasadr̥ṣam*, which is unintelligible. I have emended to *gāurasadr̥ṣam*, at the suggestion of my friend, Dr. C. J. Ogden, who referred me to the compounds *kanakacampakadāmagāurīm* (Bilhana's *Cāurapañcāśikā*. v. 1), and *campakadāmagāurī* (Mahābhārata 15. 25. 13).

⁴ *Pragalbha* is another of the stock terms (cf. *līlā*, 1a, and *lalita*, 7a) defined in Hindu rhetorical treatises; it is translated "experienced" by Haas, in his translation of the *Daśarūpa*, 2. 29. For *pragalbha*, as a type of heroine, cf. Schmidt, pp. 264—266.

On the Etymology of Ishtar.—By GEORGE A. BARTON,
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IN the Journal of this Society, XXVIII, 112—119, Professor Haupt published a theory of the etymology of Ishtar. The article is packed with the wealth of philological material that we have learned to expect from the pen of this distinguished Semitist. There was one crucial point, vital to the whole case, in which the argument rested on one single example—an example, too, which did not prove the conclusion drawn from it. The present writer was, accordingly, never convinced that the etymology offered was correct. As the subject is a difficult one, no dissent was immediately expressed. Since it now appears that Dhorme has been misled by it,¹ it is not out of place to discuss the point a little further.

Haupt derives the name Ishtar, עִשְׁתָּרַת, &c. from the stem אִשַּׁר, from which אִשְׁרָה comes, by the infixing of a ת after the second radical. This ת Haupt regards as perhaps the feminine ending ת moved backward, although he recognizes that it may be the reflexive ת. Now it so happens that אִשַּׁר begins with א, and עִשְׁתָּרַת with ע. The name is found in Hebrew, Phœnician, Moabitish, Aramaic, South Arabic, and Ethiopic, in all of which languages the ע appears. That the same consonant stood at the beginning of the word in Semitic Babylonian, is shown by the fact that the name begins with I. This I, as is well known, is often found in Babylonian and Assyrian where an ע was originally the accompanying consonant. To derive the name of this deity, once universally worshipped by the Semites, from אִשַּׁר, one must prove that in primitive Semitic א could be changed to ע. In proof of this Haupt offers but one example. The Hebrew עִשְׁתִּי, Assyrian *īštin*, he derives from the Sumerian *aštan*.

This derivation from AŠ = 1 and TA-A-AN = "amount" is, however, hardly tenable. Haupt refers for proof only to

¹ La Religion Assyrio-Babylonienne, Paris 1910, pp. 85 and 116.

the work of Schorr, *Altbabylonische Rechtsurkunden*, p. 163 n. ^a and p. 208. All that these references prove is that TA-A-AN can mean "amount". They have no bearing on the compound AŠ-TAN. Moreover Prince has pointed out, (*Sumerian Lexicon*, p. 195), that *istin* cannot well be derived from AŠTAN, because as early as the time of Hammurabi (Laws. xi, 6). it made a feminine *istiat*. The Sumerian origin of the one example on which the whole case rests is, accordingly, very questionable. If *istin* were really derived from AŠTAN, the initial *ʿ* would be paralleled in modern Syriac in which Ireland appears as *ܝܪܠܢܕ*, and oxygen as *ܝܫܡܝܢ* (cf. Nöldeke, *Grammatik der neusyrischen Sprache*. p. 60). As noted below, this phenomenon is accompanied in modern Syriac by an interchange of *ʾ* and *ܥ*; this is paralleled in Babylonian and Assyrian by the confusion of all the gutturals except *ܟ*. That outlying dialects of Semitic in which distinctions between the gutturals were passing away could exhibit such phenomena, is not strange, but it is quite another thing to ask us to believe that such interchange occurred in uncontaminated primitive Semitic. *Istin* appears in Hebrew in the Babylonian period of Hebrew history as *עֶשְׂתִּי*. It occurs in Jeremiah, but not in the text of the Book: only in the editorial title (1:3) and an exilic supplement (52:5). Its earliest occurrence is really in Ezekiel (40:49). Whether of Semitic or foreign origin, it does not appear in the Semitic dialects generally.

עֶשְׂתִּי, on the other hand, is a primitive Semitic word. It is found in all the great divisions of the Semitic speech. To prove that it is derived from the stem *אֶשֶׁר*, it is necessary to show that in primitive Semitic *ʾ* and *ʿ* were interchangeable. Proof for this is altogether lacking.

It is perfectly true that in widely scattered Semitic dialects *ʾ* sometimes stood for *ʿ*, but, as Haupt admits, this was all in comparatively late time. It came about when in many parts of the Semitic world *ʿ* was losing its original quality.

Thus in Hebrew, *אֶסְתֵּר* (*Esther*) is probably a spelling of *Ishtar* taken over from the Babylonian after the quality of the *ʿ* had disappeared. Similarly, in the Targum Yerusalmi and the Palestinian Talmud *לֵעָה* occurs for *לֵאָה*. "to weary ones self" and *תִּבְעֵשׂ* for *תִּבְאֵשׂ* "it is unfavorable". In the Talmud *עֵרְוָנָה* is sometimes spelled *אֵרְוָנָה* (cf. Dalman, *Aramäische*

Grammatik, 97, 39). Such examples prove the same confusion of these sounds in Jewish Aramaic. In late Punic, too, the distinction between **š** and **ṣ** was lost. In CIS, I, 373⁴ שִׁמָּא "hear" occurs instead of the ordinary שִׁמַּע (cf. 371⁶), while in 387² שִׁע is written for the relative pronoun ordinarily spelled שִׁי (cf. 385²). In Palmyrene Aramaic we have עֲתַקֶּקב for אֲתַקֶּקב (cf. Lidzbarski, *Ephemeris*, I, 198).

In Mandaean, though there are numerous cases in which **š** has replaced **ṣ** (cf. Nöldeke, *Mandäische Grammatik*, 69 ff.), there seem to be few if any cases in which **ṣ** stands for **š**, though it sometimes stands for **ʾ**, thus יְהָ becomes עֵהָא (cf. *ibid.* 60 ff.). In modern Syriac **l** is not distinguished from **ḥ**, thus لֵחַ stands for and beside חֵלַ in the sense of "narrow", **ḥ** beside **ḥ**, "between" (cf. Nöldeke, *Grammatik der neu-syrischen Sprache*, 60).

This confusion is also found in late dialects of South Semitic. Thus in Tigré, Tigrīna, and Amharic, 'and' are hopelessly confused (cf. Brockelmann, *Vergleichende Grammatik der semitischen Sprachen*, pp. 124, 125). In the Mehri dialect of South Arabia the **ḥ** has entirely disappeared and is replaced sometimes by **l**, sometimes by **š** and sometimes by **ḥ** (see Jahn, *Grammatik der Mehri-Sprache* pp. 2 and 9).

Apart from such confusion, which arose from a weakening of the pronunciation of **ṣ** as the language decayed, the only change of which there seems to be any trace is the change of **ṣ** to **š** in certain cases. Thus in Syriac and Palmyrene **ṣ** before another **ṣ** was dissimilated to **š**. In Syr. ܠܠܐ, "rib", became ܠܠܐ: In West Syriac, **ṣ** before **ḥ** became **š**; *uḥdānā*, "contract", became *ʾuḥdānā* (cf. Brockelmann, *op. cit.* 241 ff., and Nöldeke, *Syriac Grammar*, p. 25). In Syriac, **ṣ** before **q** is sometimes dissimilated to **š**, *ʿqlānā*. "bracelet" becoming *ʿqlānā* (Brockelmann, p. 242). Of the opposite change of **š** to **ṣ** the older dialects afford no example.

Not only is this true, but the stem אֲשַׁר appears in South Semitic as well as North Semitic. where, as in North Semitic, it is spelled with **š**. In a South Arabic inscription 𐩣𐩣𐩣 is a goddess, parallel in name as in functions to אֲשֶׁרָה (cf. Hommel, *Aufsätze und Abhandlungen*, II, 206). The occurrence of this name in the south as well as in the north, proves that these two names, אֲשֶׁרָה and עֲשֶׂתֶרָה, were from primitive times philologically and orthographically distinct.

The etymology of Ishtar must accordingly be sought in a stem beginning with y . The present writer has twice suggested such an etymology (*Hebraica* X, 69—71, and *Semitic Origins* 102 ff.), deriving the name from the stem عثر . In the work last referred to it was suggested that, as عثور means an "irrigating ditch" and عثر "that which is watered by rain alone", the name meant "she who waters", or "is watered". I should have added as an alternative meaning "the self-waterer". A writer in the *Nation* (vol. LXXV, p. 15), who withheld his name, but whose identity it is not difficult to divine, criticised this view because the Arabic lexicographers assert that the term عثر was applied to the palm tree because it "stumbled upon the water necessary to it and did not need to be irrigated". Such a statement is, however, not decisive. It is doubtful whether an Arabian lexicographer's guess as to the origin of a custom or an etymology is superior to that of a modern scholar, especially as the lexicographer bears witness in the same context (*Lisan*, VI, 215), that the term was applied to "whatever seed is watered by the water of stream or rain" ($\text{وقيل هو من الزرع ما سقى بماء السيل والمطر}$). This is a statement of general usage, concerning which the lexicographer's testimony is valuable. It is of much more weight than his guess as to the reason of the usage. If the root عثر was applied to whatever seed was watered by natural processes, it certainly had something to do with water, or watering. Paton (*Hastings Encyclopedia of Religion and Ethics*, II, 116 ff.) has accepted this etymology, suggesting that it was applied to the numen of a spring and meant the self-waterer. He points out that all over the Semitic world springs were supposed to be the dwellings of numina. This is a very probable suggestion, superior, I believe, to the application of the etymology made by me.

In whatever way the meaning is to be explained, the evidence, philological and religious, points to an etymology from the root عثر as a term connected with irrigation. The ت is most plausibly explained with Paton as the infixed ت of a reflexive, infixed as in the viiith stem of Arabic, afterward undergoing metathesis with the following radical after the analogy of ن before a sibilant in North Semitic. Parallel forms from both North and South Semitic were cited by me in *Hebraica*, loc. cit.

The Etymology of Syriac dastabîrâ.—By ROLAND G. KENT, Assistant Professor in the University of Pennsylvania, Philadelphia, Pa.

ON two Aramaic, or rather Syriac, incantation bowls, listed as CBM¹ 16086 and CBM 16019, in the Archaeological Museum of the University of Pennsylvania, there occurs the word דַּסְתַּבִּירָא, which is here found for the first time. On CBM 16086 the word occurs four times, in the following phrases:

"This דַּסְתַּבִּירָא against all the demons and satans and devils and Liliths", etc.

"He wrote against them a דַּסְתַּבִּירָא, which is for all time by the virtue of" certain magical syllables.

"I have dismissed you" (the devils) "by the דַּסְתַּבִּירָא".

"Charmed and sealed and countersealed is this דַּסְתַּבִּירָא by the virtue of" certain cabalistic syllables.

On CBM 16019 the word occurs for times likewise, in phrases that are practical duplications of those on CBM 16086.

Prof. J. A. Montgomery, who is preparing these bowls for publication, asked the writer to investigate the etymology of the word, which is manifestly non-Semitic.

דַּסְתַּבִּירָא may be read *dastabîrâ* or *dastabêrâ*. Certain features are plain: 1. The final -â is the "emphatic Aleph", and is therefore to be disregarded from the etymological standpoint, as a Semitic addition to the original word. 2. The word, from its context, must denote either the bowl, or the writing on the bowl, or the charm that the bowl effects, or some similar idea. 3. The first part is evidently the Pahlavi *dast* 'hand', = old Persian *dasta-*, Avestan *zasta-*, Skt. *hasta-*. This as an element of a compound lends itself well to the idea necessary: "handwriting" occurs at once as a natural meaning. 4. Since דַּסְת is from the Persian, the word is a borrowing

¹ CBM = Catalogue of the Babylonian Museum.
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from the Persian — more narrowly speaking, from the Pahlavi or middle Persian, as the bowls are of about the sixth century A.D.

What now is the element *-bîr-* or *-bêr-*? Unfortunately neither this word nor any word resembling it is to be found in the Pahlavi glossaries¹; and recourse must be had to the consideration of the possibilities from the phonetic standpoint:

In Pahlavi initial *b* represents older Iranian *b*; thus Pahlavi *brāš* 'brother' = old Persian and Avestan *brātar-*, Sanskrit *bhrātar-*². This Iranian *b* represents Indo-European *b* and *bh*³, appearing in Sanskrit as *b* and *bh* respectively. Perhaps older *dv* initial appears as *b* in Pahlavi, though this is uncertain⁴. Iranian *p* after vowels becomes Pahlavi *b*⁵; but as this בִּיר is the second element of a compound, such an origin for *b* is here unlikely.

Pahlavi *ī* represents older *i*⁶; or *ī* with compensatory lengthening as in *tīr* = Avestan *tiyri-* 'arrow'; or *ya iya*⁸. If on the other hand בִּיר be read *-bêr-*, Pahlavi *ē* may represent the earlier diphthong *ai*, appearing in old Persian as *ai* and in Avestan as *aē* and *ōi*⁹, or *ā* changed to *ē* by the influence of a *y* in the next syllable, as in *ērān* = Avestan *aīryana*¹⁰; or *ā* contracting with immediately following *y* that developed from (Avestan) *γ*, as in *anērān* = Avestan *anayrānam*¹¹; it develops also from *aya ahyā ašy*¹².

Pahlavi *r* may represent earlier *r*¹³; less often *γr*¹⁴, *θr*¹⁵, *hr*¹⁶, *rn*¹⁷, possibly *rd* (old Persian *rd*, Avestan *rz*)¹⁸.

The modern Persian بَیْر *bîr* may be first disposed of. This

¹ Hoshanji and Haug, *An old Zand-Pahlavi Glossary*, ed. 2, 1870; West, *Mainyo-i-Khard*, with glossary, 1871; West and Haug, *Glossary and Index of the Pahlavi-Texts Arda Viraf*, &c., 1874; de Harlez, *Manuel du Pehlevi*, 1880.

² Salemann, *Mittelpersisch*, §20a, in Geiger and Kuhn's *Grundriss der iranischen Philologie*, vol. I, part 3.

³ Bartholomae, *Vorgeschichte der iranischen Sprachen*, §3.2, 3, in Geiger and Kuhn, *op. cit.*, vol. I, part 1.

⁴ Salemann, *op. cit.* §33 N. 2.

⁵ *ib.*, §15, §18.

⁶ *ib.*, §36.

⁷ *ib.*, §39 l, §21 d.

⁸ *ib.* §39.

⁹ *ib.*, §36.

¹⁰ *ib.*, §41.

¹¹ *ib.*, §21 d.

¹² *ib.*, §41.

¹³ *ib.*, §30.

¹⁴ *ib.*, §21 d.

¹⁵ *ib.*, §22 b.

¹⁶ *ib.*, §24.

¹⁷ *ib.*, §30.

¹⁸ *ib.*, §30.

As *rd* may become Pahlavi *l* with loss of the *d*, it would appear likely that as *r* ordinarily remains *r*, this group might develop also into Pahlavi *r*.

has the meanings 'lightning; a well; a couch, hedcover; flood; to memorize; brother, hero, brave'; none of these would in the compound yield a suitable meaning. Apart from that consideration, *בִּיר* is in some meanings derived from Hebrew and in the others from Arahic, so that it is out of the question here.

To turn now to the Avestan words¹, several fit fairly well the phonetic requirements²:

bar̥ya-, neut. suhst., 'carrying, receipt'.

ba^orya- (graphic for *barvya-*), adj. 'to be chewed, solid', in reference to food.

bar̥ta-, ptc., 'carried'.

dvar-, masc. subst., 'door, gate'³.

Of these none seems semantically possible.

Sanskrit yields a few words suitable for consideration:

bhadrá-, adj., 'bright, happy'; as neut. subst., 'fortune'.

bhāryā-, adj., 'to be supported or maintained'; as masc. subst., 'soldier, servant'; as fem. subst., 'wife'.

bhīra-, adj., 'frightening, terrifying'.

bhīrú-, adj., 'timid'.

dvārya-, adj., 'belonging to or being at a door'³.

Here, at last, we find in *bhīra-* a likely source for *בִּיר*: *רסתבירא* may well be the Syriac representation of a hypothetical old Persian **dasta-bīra-*, Avestan **zasta-bīra-*, Sanskrit **hasta-bhīra-*, 'a thing terrifying by the hand(writing)', that is, a 'written deterrent' as opposed to a 'spoken deterrent' against the demons.

This implies, of course, that *dasta-* depends upon *-bīr-* in an instrumental relation; but in such compounds the first element may stand in any case relation to the second: cf. Sanskrit *hasta-kamala-m* 'a lotus held in or by the hand', *hasta-dīpa-s* 'a lantern carried in or by the hand', *hasta-sajñā* 'a

¹ Bartholomae, *Altiranisches Wörterbuch*.

² Should initial *p* be considered a possibility for the *b* of *בִּיר*, then we must take the following words also into account; *par̥na-*, neut. subst., 'feather, wing'; *pa^urva-*, adj., 'former'; *pa^orya-* (graphic for *parvya-*), adj., 'first'; *pātar-* *pāθr-*, masc. subst., 'protector'. Of these, the last, in a *-ya-* derivative, would yield a good meaning, but the phonetic development seems to the writer highly improbable.

³ The bowls were placed at the corners of the house, not at the door, so that derivation from this word is precluded.

sign made with the hand', *hastābharana-m* 'an ornament for the hand', *hastāmbha-s* 'support for the hand, refuge, hope'; Greek χειρ-αγωγήμα 'a leading by the hand', χειρό-γραφος 'written by the hand', χειρό-μαντις 'diviner by palmistry'; Latin *mān-suētus* 'accustomed to the hand, tame'; Gothic *handu-wairhts* 'made with the hand'; English *handbill* 'a printed sheet to be distributed by hand', *handbook* 'book of reference suitable for carrying in the hand or for keeping at hand', *handcuff*, *handpress*, *handshake*, *handiwork*, *manufacture*.

As for the meaning of *dasta-* = 'handwriting', this is a meaning found in English *hand*, German *Hand*, French *main*, Italian *mano*, as well as in Greek χείρ and in Latin *manus*:

Hyperides ap. Poll. II. 153 τὴν αὐτοῦ χεῖρα ἀρνεῖσθαι 'to deny his own hand'.

I Epistle to the Corinthians xvi 21 ὁ ἀποσπασμὸς τῇ ἐμῇ χειρὶ Παύλου 'the salutation of me Paul with mine own hand'.

Cicero in Catil. 3. 5. 12 *manum suam cognovit* 'he admitted his own hand'.

Cicero ad Att. 8. 13. 1 *lippitudinis meae signum tibi sit librarii manus* 'let the scribe's handwriting be evidence to you of my eye-trouble'.

Cicero ad Att. 7. 2. 3 *Alexidis manum amabam, quod tam prope accedebat ad similitudinem tuae litterae* 'I liked Alexis' hand, because it was so like your writing'.

דַּסְתָּבִירָא seems now to mean a 'handwritten deterrent' in distinction from a 'spoken deterrent'. 'Hand' is indeed not infrequently used in opposition to 'word', but in the sense of 'force'; so Iliad I. 77 ἔπεισιν καὶ χερσὶν ἀρήξουσιν 'that you will defend me by word and by deed'¹; but in the case of a charm the meaning 'force' is impossible. The alternatives are a 'written charm' and a 'spoken charm'; and the word 'hand' is readily available to distinguish the former from the latter. An interesting parallel to 'spoken deterrent' is found in Sanskrit: *vāc-*, fem., 'voice' and *kṣatā-* 'hurt, wounded, destroyed, violated', when compounded, form a neut. subst. *vāk-kṣata-* 'offense by words', as opposed to physical assault: and *vāc-* with *daṇḍa-*, masc., 'stick', makes *vāg-daṇḍa-* 'speech assault, reproof, reprimand, verbal injury'.

¹) Cf. Iliad I. 395 ἡ ἔπει... ἡὲ καὶ ἔργῳ, and the common idiom λόγῳ καὶ ἔργῳ.

Phonetically and semantically, therefore, there is no objection to this etymology for דַּסְתַּבִּירָא; but there are two other possibilities in the Avestan, that should not be overlooked:

1. *bōiura-*, neut. subst., 'fight, strife', for earlier **baibra-*¹, would become Pehlevi **bēwr*, and if borrowed with omission of the weak sound *w* would give Syriac *-bêr-*, with an excellent sense: 'strife or fight by means of handwriting'. The omission of the *w* is however a serious objection.

2. Avestan *var̥zya-* 'activity, work', a substantivized neuter adjective, = 'faciendum'. In old Persian this would appear as **v(a)rdya-* (written **v(a)rdiya-*). Now in the change from old Persian or Avestan to Pahlavi the group *r* + consonant + *y*, or consonant + *r* + *y*, loses the consonant and the *y* palatalizes an *a* in the preceding syllable to *ē*: Pehlevi *dēr* = Avestan **dar̥gya-*; modern Persian *tērah* = Avestan *taθrya-*, *sēr* 'lion' = Avestan *ṣšaθrya-* 'royal'². Hence old Persian **vardya-*, Avestan *var̥zya-* would become Pehlevi **vēr*. Were this borrowed with a hardening of *v* to *b*, דַּסְתַּבִּירָא with בִּיר from this source would mean 'handiwork, handwriting'. This etymology is however rendered questionable by the uncertainty of the treatment of Pahlavi *v* and by the question whether the change of *a* to *ē* in the manner described would be complete and definite enough to cause the resultant *ē* to be represented by Semitic '.

To return then to Sanskrit **hasta-bhīra-*, Avestan **zasta-bīra-*, old Persian **dasta-bīra-*: that we should find on a Syriac bowl a word which was borrowed from Pahlavi, although we have no trace of it in Persian of any date, is not so remarkable as it might at first sight seem. The sacred literature of the Parsis, as now extant, is but a small portion of the original writings. Even a casual glance at Bartholomae's *Altiranisches Wörterbuch* reveals that many words occur but once in the extant texts; whence it is evident that many

1) Sanskrit *bhāra-*, masc., 'fight' shows the root in 'simpler guise; Avestan *bōiura-* has intensive reduplication, **bhāi-bhira-*; cf. Bartholomae, *Indogermanische Forschungen* X. 100. This intensive reduplication is seen in Greek *δαίδαλος* 'cunningly wrought', *καυπάλη* 'fine flour', *καυπάσσω* 'I dart quickly'; cf. Brugmann, *Griechische Grammatik*³ § 299. 1.

2) Salemann, *op. cit.* § 41.

words used in the lost portions perished with them¹. There is therefore no inherent improbability in assuming the former presence of Avestan and old Persian **bîra*-, Pahlavi **bîr*, surviving in Syriac *dasta-bîr-â*.

¹ Yet it is possible that the aorist of the denominative verb to the stem Avestan **bîra*- is concealed within the corrupt form *bîraošat*, occurring Pursišnîhâ 18: *tanu.mazō ašayāiti yō tanu.mazō bîraošat*, translated by Bartholomae "ein *Ašawerk* im Pfandwert des Leibes muß verichten, wer ein *Drugwerk* in Pfandwert des Leibes verbrochen hat". Cf. Bartholomae, *op. cit.*, p. IX. 3; col. 965 s. v. *bîraošat*; col. 637 s. v. *tanu.mazah-*. If we have here a denominative to **bîra*-, it must have progressed from the meaning 'terrify' to 'commit a terrifying, frightful act', a quite natural semantic change.

The Washington MS. of Joshua.—By MAX L. MARGOLIS,
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Prof. Sanders, the editor of the Washington MS. of Deuteronomy and Joshua belonging to the Freer Collection, discusses the textual problem presented by the new uncial at length. Its aspects are shown to differ in the two books. In Joshua "Θ (= Washington MS.) and A (= codex Alexandrinus) stand closer together than in Deuteronomy, but still represent fairly independent traditions, as is shown by the 253 agreements between Θ and B (= codex Vaticanus)". In the forms of names "Θ agrees with A nine times as often as it does with B".

In view of this close relationship it is to be regretted that the editor chose to base his collation on B rather than on A. I have therefore made a fresh collation. I found that Prof. Sander's work, if some three or four inaccuracies are excepted, is most perfect. The same cannot, however, be said of Swete's work. In round 50 places Swete's collation is inaccurate so far as the readings of A are concerned.

On the basis of my fresh collation, the relationship of Θ and A as members of one and the same group is unmistakable. Certain omissions in Θ are intelligible, i. e. explainable as having arisen through homoioteleuton, only when the text of A is compared. Comp. 7, 17; 11, 5; 17, 8; and for the converse process, 19, 31. In some of these cases, it is true, another manuscript steps in in the place of A as the basis of the mutilated text underlying Θ, so N. Which goes to show that we are dealing here with a group consisting of Θ, A, N, possibly M, and a number of cursives.

The disagreements between Θ and A in the proper names are, generally speaking, of a nature to substantiate rather than to invalidate the affinity of the two uncials, the divergence between them being trifling, when their common devia-

tion from B is compared. Comp. e. g. *ααλακ* Θ *αλακ* A / *αχελ* [read *αχελκ*, *και* follows, = *רָחֵל*] B. There are, of course, instances in which it would seem that either Θ or A has moved nearer to B. But their proportionate number is in the first place too small to be taken into account; and secondly, in nearly all of them we have to do with readings on which the two forms of the text as represented by B and A have never divided to an appreciable extent. This holds good even where the Hebrew is at variance. For, if A be but a text adjusted to the Caesarean standard codex, it can be shown that Origen was conservative in his treatment of the *κοινή*, introducing tacit emendations only where the common reading seemed at least to him to be hopelessly corrupt. Then the different hands of the two codices must be taken into account. When furthermore the remaining group-members are consulted, the reading of Θ or A reveals itself as singular or sub-singular.

As for the remainder of the text not covered by proper names, my own count yields 208 cases in which Θ goes with B against A. In 23 of them the various hands of the three uncials have come into play. Of the large remainder of 185 instances in which Θ coincides with B against A, more than one half (95) show A in isolation which is absolute in by far the greater number (55). Of these absolutely singular readings, 29 are clear errors; 4 are decidedly inferior; of the remaining 22, two may perhaps represent corrections to minimize the dissonance with the Hebrew, while the bulk are of a trifling character. As for the 40 relatively singular readings, 10 may be pronounced to be errors and 6 inferior; in 4 there is a more or less certain adjustment to the Hebrew, while in one instance the omission of a redundant pronoun eases the Greek; the remaining 19 instances concern trifles.

So far I am able to furnish accurate statistics. But my tabulation still remains to be finished. In a summary way I can see now that codex 121 is a close relation of A, sharing together errors and singular readings; also that some readings of A go back to the *κοινή* in some other form than the one which is revealed in B.

Where A has moved nearer to B, it is frequently a case of omitting asterisked passages. Both Θ and A are excerpts from the Septuagint column in Origen's work which have been adjusted to a *κοινή* text. Following the well-known prescription

of Jerome, obelized passages were on the whole retained, while asterisked passages were omitted. Yet the redactors of the two texts in question did not always coincide in the amount excised.

As to the relative merit of Θ and A, Θ is the more accurate text. But inferior readings are found even in Θ . The two check each other's errors admirably.

An accurate estimate of the place of Θ and A in the narrower group to which they belong is impossible without a fresh collation of its constituent codices, both uncial and cursive. In view of the inaccuracies in Swete's apparatus, as pointed out above, an edition of the complete text of Θ with the variants from A is deemed desirable by the present writer, to serve as a basis for a collation of the other group-members, like M and N and the rest. On our steep road to the earliest form of the Septuagint, we need resting places, points of vantage; such are the groups, narrower and wider, into which the extant texts may be divided. The proper names in the Book of Joshua are the milestones which guide the investigator in finding his way to texts held together by group affinity. Thus, in the Book of Joshua, there are all told six groups, of which three show traces of Origen's Palestinian text. Among these is the group to which both Θ and A belong.

A Letter from the Mahdi Muhammad Ahmad to General C. G. Gordon. — By GEORGE SVERDRUP JR., Professor in Augsburg Seminary, Minneapolis, Minn.

This letter from the Mahdi to General Gordon is found in a manuscript belonging to the collection of Arabic manuscripts made by Count Landberg, and presented to the Yale University Library in the year 1900 by Mr. Morris K. Jesup. The manuscript in question is a collection of letters, or rather copies of letters, written by the Mahdi on various occasions. It is a companion volume to one which is in the possession of the Egyptian Intelligence Office in Cairo. Some of the letters found in the Yale manuscript are also found in the Cairo manuscript. It differs from the Cairo manuscript in this, that it contains no letters of other dignitaries as the Cairo one does. The Cairo manuscript was captured in the battle of Toski, August 3, 1889. Just where or how Count Landberg obtained possession of this manuscript the writer has been unable to discover.

The Yale manuscript is paged continuously up to page 503, of which the last nine lines are blank. Pages 251—352 are missing, i. e. five quinion gatherings. There are in all 21 gatherings; four quaternions, and the rest quinions. The pages have 20 lines. The dimensions of the manuscript are nine and one eighth by six and three eighths inches; the written surface seven and one eighth by four and five-eighths inches. At the bottom of every odd-numbered page there is a catch-word. Count Landberg has added a table of contents.

In the manuscript there are 148 letters and proclamations each beginning with the phrase: "In the name of God the Merciful" &c. The الحمد لله and the beginning word of quotations from the Koran are written with red ink. No chronological order is followed in the arrangement of the documents. The dates are missing from many of the letters, among which is also the Gordon letter. In his appended "Régistre" Count

Landberg says: "fort à regretter est cette omission surtout dans la lettre intéressante, adressée à Gordon pacha". This omission can be supplied, at least for the date on which Gordon received the letter, as will be shown. The Gordon letter is found on pages 470—475 of the manuscript.

The bibliography for the history of the Sudan for the period 1880—1900 is large, especially in periodical literature. Attention here is called only to the very important sources. First of all are the British Government "Blue Books". The most important then are: *The Journals of General C. G. Gordon, C. B., at Khartoum*, printed from the original manuscript with an Introduction and Notes by A. Egmont Hake, Boston 1885; *Letters of General C. G. Gordon to his sister M. A. Gordon*, London, 1888; *Fire and Sword in the Sudan, 1879—1895*, by Rudolf C. Slatin, C. B., translated by F. R. Wingate, London 1896; *A Prisoner of the Khaleefa* (Twelve Years Captivity at Omdurman), by Charles Neufeld, London, 1899; *Ten Years Captivity in the Mahdi's Camp*, by Father Joseph Obrwalder; *The Life of Gordon*, by Demetrius C. Bulger, two vol. s, London, 1896; *Mahdism and the Egyptian Sudan*, by Major F. R. Wingate, D. S. O., R. A., 1891; and *Modern Egypt*, by the Earl of Cromer, two vol. s, New York, 1908. Lord Cromer's appreciation of General Gordon is far from impartial; but his book throws much light upon the many misunderstandings between these two men. In Arabic there is the important تاريخ السودان by Na'oum Bey Shoucair, Chef de Bureau in the Agent-General's Office in Cairo, printed in Cairo, 1904. Na'oum Bey Shoucair undoubtedly had much to do with gathering the material for Wingate's book. At any rate the two are very similar in plan and contents.

The Text of the Letter (Arab. ms. Yale 543).

470¹⁷ بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ الحمد لله الوالى الكريم والصلاة
على سيدنا محمد وآله مع التسليم¹⁸ وَبَعْدَ فَمِنْ الْعَبْدِ الْمُفْتَقِرِ
لمولاه محمد المَهْدِيِّ بن السيد عبد الله الى^a بريطانية الخديوية
¹⁹ غردون باشا نُعْلِمُكَ أَنَّ اللَّهَ سُبْحَانَهُ وَتَعَالَى مَعَ حَلِيمِهِ وَكَرَمِهِ يَهْمِلُ
وَلَا يَهْمِلُ وَلَا يَرُدُّ بَأْسَهُ²⁰ عَنْ الْقَوْمِ الْمُجْرِمِينَ وَهُوَ وَلِيُّ الْمُؤْمِنِينَ
قَالَ تَعَالَى (*) اللَّهُ وَلِيُّ الَّذِينَ آمَنُوا يُخْرِجُهُمْ⁴⁷¹¹ مِنَ الظُّلُمَاتِ
إِلَى النُّورِ وَالَّذِينَ كَفَرُوا أَوْلِيَاؤُهُمُ الظَّالِمُونَ يُخْرِجُونَهُمْ مِنَ النُّورِ
إِلَى الظُّلُمَاتِ² أُولَئِكَ أَصْحَابُ النَّارِ هُمْ فِيهَا خَالِدُونَ³ وَقَدْ نَوَّهَ فِي
القرآن المجيد وغيره من كُتُبِهِ الْقَدِيمَةِ³ وَعَلَى لِسَانِ كُلِّ رَسُولٍ
وَنَبِيٍّ وَامِينٍ فِي دِينِهِ يُدْخِلُ الدُّنْيَا وَحَذَّرَ مِنْهَا الْعُقَلَاءَ وَدَعَاهُمْ⁴ إِلَى
الْآخِرَةِ وَرَغَّبَهُمْ فِيهَا لِأَنَّهَا دَارُ الْبَقَاءِ وَالْعِزِّ وَالشَّرَفِ وَالْجَاهِ الْوَسِيعِ
وَالْمَقَامِ الرَّفِيعِ⁵ وَالْمَنْزِلِ الشَّامِعِ وَالْعَيْشِ الْهَنَى كَمَا يَشْعُرُ بِهِذِهِ
كُلُّهَا قَوْلُهُ تَعَالَى * اَعْلَمُوا أَنَّهَا الْحَيَاةُ الدُّنْيَا لَعِبٌ وَلَهُوَ وَزِينَةٌ وَتَفَاخُرٌ
بَيْنَكُمْ وَتَكَاثُرٌ فِي الْأَمْوَالِ وَالْأَوْلَادِ كَمَثَلِ غَيْثٍ أَعْجَبَ الْكُفَّارَ⁷ نَبَاتُهُ
ثُمَّ يَهْبِطُ فَيَذَرُهَا مَصْفَرًّا ثُمَّ يَكُونُ حُطَامًا وَفِي الْآخِرَةِ عَذَابٌ شَدِيدٌ
وَمَغْفِرَةٌ مِنْ⁸ اللَّهِ وَرِضْوَانٌ وَمَا الْحَيَاةُ الدُّنْيَا إِلَّا مَتَاعٌ الْغُرُورِ سَابِقُوا
إِلَى مَغْفِرَةٍ مِنْ رَبِّكُمْ وَجَنَّةٍ عَرْضُهَا⁹ كَعَرْضِ السَّمَاءِ وَالْأَرْضِ أَعِدْتُ
لِلَّذِينَ آمَنُوا بِاللَّهِ وَرُسُلِهِ ذَلِكَ فَضْلُ اللَّهِ يُؤْتِيهِ مَنْ يَشَاءُ وَاللَّهُ
ذُو الْفَضْلِ الْعَظِيمِ¹⁰ فَمَدْلُولُ الْآيَاتِ يَفْهَمُ أَنَّ الْمُدْرِيَّ^d عَلَى صِدْقِ
الْإِيمَانِ بِاللَّهِ وَرَسُولِهِ أَنَّهُ الْمُقَرَّبُ إِلَى اللَّهِ زُلْفَى وَالْمَوْجِبُ لِرِضَائِهِ
وَالسَّبَبُ لِعَطَائِهِ وَنَيْلِ¹² مَا تَهْوَاهُ الْأَنْفُسُ وَتَلِدُ الْأَعْيُنُ وَأَنَّهُ لَا يَنْجُوا
أَحَدٌ مِنْ بَلَائِهِ وَشَفَائِهِ وَمَنْ كُلِّ الرَّدَى¹³ دُنْيَا وَآخِرَى إِلَّا بِهِ مَعَ
الْخَوْفِ الشَّدِيدِ مِنْ غَضَبِهِ وَرُهْدِ هَذِهِ^e الدُّنْيَا وَحَيَاتِهَا¹⁴ وَعُدْمِ الْوُثُوقِ

^a Supply والى؟

5719-21.

^b Sura 2258-259.^c ms. المدرا.^e ms. كله.^d Sura^f ms. هذا.

بها اذ هي زائلة خسيصة ساحرة خداعة ليس فيها راحة ولا نعيم¹⁵ بالنسبة الى ما عند الله من الخير الحسيم في دار النعيم بل من احبها واثرها على الآخرة¹⁶ خرة اكبه الله في أجل النار بدليل قوله تعالى *فَأَمَّا مَنْ طَغَى وَآثَرَ الْحَبْوَ الدُّنْيَا فَإِنَّ¹⁷ الْجَحِيمَ هِيَ الْمَأْوَى* ومعلوم أنه لا طایل تحت جاه الدنيا وحباتها ومتاعها وأمور¹⁸ إليها إلا الحسرة الطويلة في الآخرة ولذلك جاء من سيدنا عيسى بن مريم على نبينا وعليه¹⁹ صلاة الله وسلامه أنه قال يَمْعَشَرُ الْحَوَارِيِّينَ^b أَعْبَرُوا الدُّنْيَا وَلَا تَعْمُرُوهَا إِنِّي لَمْ أَجِدْ لَكُمْ^c فِيهَا مَسْكَنًا وَاتَّخِذُوا مَسَاجِدَ اللَّهِ يُبُونًا وَاتَّخِذُوا بُبُونَكُمْ مَسَاجِدًا وَكُلْ تَامِرَ وَمَرْنَحَ⁴⁷²¹ وعنه عليه السلام يَمْعَشَرُ الْحَوَارِيِّينَ^d كُلُوا خُبْزَ الشَّعِيرِ بِالْمِلْحِ^e الْجَرِينِ وَلَا تَأْكُلُوا² إِلَّا عَلَى شَهْوَةِ الْبُسُو عَلَى مَنْسُوجِ الشَّعْرِ وَأَخْرِجُوا مِنَ الدُّنْيَا سَالِمِينَ بِحَقِّ أَقُولُ لَكُمْ³ أَنَّ حَلَاوَةَ الدُّنْيَا مَرَارَةٌ فِي الْآخِرَةِ وَأَنَّ عِبَادَ اللَّهِ لَيْسُوا بِالْمُتَنَعِّمِينَ وعن رسول الله⁴ صلى الله عليه وسلم أنه قال ما ذِئْبَانِ جَايِعَانِ أُرْسِلَ فِي زُرْبَةٍ^f غَنِمَ بِأُسْدٍ لَهَا مِنْ⁵ حِرْصِ الْمَرْءِ عَلَى الْحَالِ وَالشَّرَفِ لِدِينِهِ وَرَوَى أَنَّهُ صَلَّى اللَّهُ عَلَيْهِ وَسَلَّمَ مَرَّ مَعَ نَفَرٍ مِنْ أَصْحَابِهِ⁶ بِزُقَاقٍ^g مِنْ أَرْقَةِ^h الْمَدِينَةِ فَذَا فِيهَا عَنَاقٌ مَيْتَةٌ مُلْقَاتٌ فَقَالَ صَلَّى اللَّهُ عَلَيْهِ وَسَلَّمَ وَاللَّهِ⁷ لِلدُّنْيَا أَهْوَنُ عَلَى اللَّهِ مِنْ هَذِهِ الْعَنَاقِ عَلَى أَهْلِهَا حَتَّى أَلْقَوْهَا وَلِكُونِهَا أَحْسَرُ فِي⁸ هَوَانِهَا مِنَ الْجِيْفَةِ عَهَدَ رَسُولُ اللَّهِ صَلَّى اللَّهُ عَلَيْهِ وَسَلَّمَ إِلَى صَحَابَتِهِ وَسَائِرِ أُمَّتِهِ بِقَوْلِهِ⁹ لَيَكُنْ بِلَاغِ أَحَدِكُمْ مِنَ الدُّنْيَا كِرَادِ الرَّاكِبِ وَقَالَ صَلَّى اللَّهُ عَلَيْهِ وَسَلَّمَ مُنْقَرًا عَنْهَا إِنَّمَا مِثْلُهَا وَمِثْلُ¹⁰ الدُّنْيَا كِرَاكِبٌ تَحْتَ ظِلِّ الشَّجَرِ ثُمَّ رَاحَ وَتَرَكَهَا انْتَهَى وَلَاⁱ هَادِيَ إِلَّا اللَّهُ عَلَى أَنَّهُ تَعَالَى قَالَ¹¹ *فَمَنْ آهَتَكَ فَإِنَّمَا يَهْتَدِي لِنَفْسِهِ وَمَنْ ضَلَّ فَإِنَّمَا يَضِلُّ^k الْآيَةُ وَحَيْثُ كَانَ كَذَلِكَ فَيَكُنْ¹² مَعْلُومًا إِنِّي

^a Koran 7937-39. ^b ms. الحواريين. ^c ms. الشعيرى لملح. ^d ms. الحواريين. ^e ms. زريبة. ^f ms. بزقاق. ^g ms. ازرقة. ^h ms. ولاد. ⁱ ms.

^j ms. تعمروها. ^k ms. زريبة. ^l ms. Koran 10108.

داع الى الله وخليفة رسول الله صلى الله عليه وسلم وأتى المهدي المنتظر¹³ ولا فخر وقد أظهرني الله رحمة لمن طاعه واتبع سكة نبيه محمد صلى الله عليه وسلم ونقمة¹⁴ على من عصاه وخالفه واتبع شيطانه ونفسه وهواه واخذ الى دنياه وقد خا¹⁵ طبتك قبل هذا بإيضاح أمرى مفصلاً ودعوتك الى السلام والايمان وكان الواجب¹⁶ عليك أن تجيب بالسمع والطاعة قبل أن ترى ما قد رأيت مع أن الذي أبشرت به اليك¹⁷ سابقاً ليس فيه إلا رشدك وصلاحك وقرورة عينك في حالك ومالك إن عقلت وعلمت¹⁸ صدق مقالتي كما هو حسن ظني فيك وأتى ما زلت أدارجك¹⁹ وأرعب لك الخير رجاء¹⁹ أن يشرح الله صدرك للاسلام فتتقى الى أمر الله المالك والعلام وتكون ممن أذعن²⁰ وأنقاد لرب العباد وخشى يوم التناهي * يوم لا يغني مولى عن مولى شيئاً²¹ ولا جاء²¹ 473 ولا مال ولا أهل ولا عيال ولا حال من الاموال بل يصدق الوعد ويحقق الوعيد كما قال جل شأنه وعز سلطانه * فأما من أوتى كتابه يسمينه فيقول هاؤم افروا كتابيه إني ظننت²² أنني ملك حسابه فهو في عيشة راضية في جنة عالية قطوفها دانية²³ كلوا واشربوا هنيئاً بما أسلفتم في الأيام الخالية وأما من أوتى كتابه بشماله فيقول²⁴ يا ليتني لم أوت كتابيه ولم أدر ما حسابه يا ليتني كنت الفاضية ما أغنى عني ماليه هلك²⁵ عني سلطانيه خذوه فغلوه ثم الجحيم صلوه ثم في سلسلة ذرعها سبعون ذراعاً²⁶ فاسلکوه²⁷ إنه كان لا يؤمن بالله العظيم²⁸ وقد بلغني أن لك أفعالاً خيرية في الظاهر مع اهل الاسلام لانه قال الله تعالى * والذين كفروا أعمالهم كسراب بقيعة يحسبه²⁹ الظمان ماء حتى إذا جاءه لم يجده شيئاً³⁰ ووجد الله عنده فوقه حسابه والله³¹ سريع الحساب أو ظلمات في بحر لحي يغشاه³² سوج من فوقه موج من فوقه سحاب³³ ظلمات بعضها فوق بعض

^a ms. لا.^d Koran 44⁴¹.^b III stem of درج not in lexicons.^e Koran 69¹⁹⁻³³.^f ms. فوفيد.^c ms. التناد.^g ms. يغشيه.

إِذَا أَخْرَجَ يَدُهُ لَمْ يَكَدْ يَرَاهَا^a وَمَنْ لَمْ يَجْعَلِ اللَّهُ لَهُ نُورًا¹³ فَمَا لَهُ مِنْ نُورٍ^b فَزَيَّنْ عَمَلَكِ بِالْإِيمَانِ وَطَهَّرَهُ مِنْ دَنَسِ الْكُفْرِ إِذْ تَكُونِ عَظِيمِ الشَّأْنِ¹³ وَتَكُونِ أَعْمَالُكَ خَيْرِيَّةَ ظَاهِرًا وَبَاطِنًا وَتَنْتَهِي لَكَ ثَمَرَتُهَا وَقَدْ تَطَلَّعْتَ لِأَخْبَارِنَا سَا¹⁴ بَقَا بِحَيْثُ أَتَكَ خَاطَبْتَنَا وَارْسَلْتَ إِلَيْنَا رَسُولًا وَطَلَبْتَ رَدَّ الْإِفَادَةِ فَكَانَ ذَلِكَ عِنْدِي¹⁵ دَلِيلًا عَلَى أَنَّكَ أَغْلُ أَهْلِ دَوْلَتِكَ إِذْ لَمْ يَخَاطَبُونِي مِثْلَكَ مَعَ آدِ عَائِهِمْ^c الْإِسْلَامِ¹⁶ دُونَكَ وَقَدْ كُشِفَ إِلَيَّ عَيْبُهُمْ أَتَهُمُ أَشَدُّ النَّاسِ كُفْرًا وَأَتَهُمُ سَيِّئُهُلْكَوْنِ عَلَى يَدِنَا ثَلَاثَةٌ بَعْدَ¹⁷ ثَلَاثَةٍ وَقَصْدِي لَكَ النِّجَاحُ مِنْ ذَلِكَ كَمَا تَقَوَّزُ مَعَ الْغَايِبِينَ وَتَكُونِ مَعَ الْكَامِلِينَ الَّذِينَ¹⁸ تَفَكَّرُوا^{*} فِي خَلْقِ السَّمَوَاتِ وَالْأَرْضِ^d وَعِلْمُوا بِغَرَايِبِهِمْ قُدْرَةَ اللَّهِ وَقَالُوا^{*} رَبَّنَا مَا¹⁹ خَلَقْتَ هَذَا بَاطِلًا سُبْحَانَكَ فَقِنَا عَذَابَ النَّارِ رَبَّنَا إِنَّكَ مَنْ تَدْخِلِ النَّارَ فَقَدْ أَخْزَيْتَهُ²⁰ وَمَا لِلظَّالِمِينَ مِنْ أَنْصَارٍ رَبَّنَا إِنَّا سَمِعْنَا مُنَادِيًا يُنَادِي لِلْإِيمَانِ أَنْ آمِنُوا بِرَبِّكُمْ⁴⁷⁴¹ فَأَمَّا رَبَّنَا فَاعْفُ رُبَّنَا دُنُوبَنَا وَكُفْرَنَا سَيِّئَاتِنَا وَتَوَقَّنَا مَعَ الْأَبْرَارِ رَبَّنَا وَآتِنَا مَا وَعَدْتَنَا^e عَلَى رُسُلِكَ وَلَا تُخْزِنَا يَوْمَ الْفِيَاةِ إِنَّكَ لَا تُخْلِفُ الْمِيعَادَ^f أَنْظَرُوا أَحْسَنَ اللَّهُ لَهُمُ الْإِجَابَةَ بِقَوْلِهِ^g *أَنِّي لَا أُضِيعُ عَمَلَ عَامِلٍ مِنْكُمْ مِنْ ذَكَرْ أَوْ أُنْثَى بَعْضُكُمْ مِنْ بَعْضٍ فَالَّذِينَ هَاجَرُوا وَأُخْرِجُوا^h مِنْ دِيَارِهِمْ وَأُودُوا فِي سَبِيلِي وَقَاتَلُوا وَقُتِلُوا لَا كُفِّرَنَّ عَنْهُمْ سَيِّئَاتِهِمْ وَلَا تُدْخِلَنَّهُمْ جَنَّاتٍⁱ تَجْرِي مِنْ تَحْتِهَا الْأَنْهَارُ ثَوَابًا مِنْ عِنْدِ اللَّهِ وَاللَّهُ عِنْدَهُ حُسْنُ الثَّوَابِ لَا يَغْرَتُكَ تَقَلُّبُ^j الَّذِينَ كَفَرُوا فِي آلِيلَةٍ مَتَاعٍ قَلِيلٍ ثُمَّ مَأْوَاهُمْ^k جَهَنَّمُ وَيَسَّرَ الْمَكَادَ لِكُلِّ الَّذِينَ اتَّقَوْا رَبَّهُمْ لَهُمْ^l جَنَّاتٌ تَجْرِي مِنْ تَحْتِهَا الْأَنْهَارُ خَالِدِينَ فِيهَا نَزَلَ مِنْ عِنْدِ اللَّهِ وَمَا عِنْدَ اللَّهِ خَيْرٌ لِلْآبِرَارِ^m الْآيَةُⁿ وَإِنَّ أَجْوِبَتِكَ الَّتِي حَرَرْتَهَا لِلْفُقَرَاءِ الْمُحَاصِرِينَ وَصَلَتْ إِلَيَّ وَالَّذِي ذَكَرْتُمُوهُ مُشْعِرًا بِأَنَّكَ أَرَدْتَ الْإِذْعَانَ وَلَكِنْ مَنَعَكَ تَوَقُّقُ الْعُلَمَاءِ

^a ms. يريها.^b Koran 24³⁹⁻⁴⁰.^c ms. ادعيائهم.^d Koran

3188.

^e ms. ما.^f Koran 3188-192.^g ms. ماويهم.^h Koran

3193-197.

الذين معك وبهذا زادتْ شَفَقَتِي عليك¹⁰ وعليهم وعلى الضعفاء
المَحْصُورِينَ عَنَّا وَرَغِبْتُ لَهُمُ الْهُدَايَةَ جَمِيعًا وَهَمُمْتُ بِأَمْرِكُمْ
11 قِيَامًا بِالْوَاجِبِ طَوْقِيئُهُ لِي¹¹ وَحَرَرْتُ لَكُمْ هَذَا وَهُوَ مَرْسُولُ لَكُمْ
صُحْبَةً أَرْبَعَةً فُقَرَاءَ مِنْ¹² أَنْصَارِنَا الَّذِينَ بَاذِلِينَ أَرْوَاحِهِمْ لِلَّهِ طَلَبًا
لَهَا عِنْدَهُ مِنْ الرِّضَاءِ وَعَظِيمِ الْجَزَاءِ فَجَزَاهُمْ اللَّهُ خَيْرًا وَهُمْ¹³ مُحَمَّدٌ
أَحْمَدٌ وَبَشِيرُ الَّذِي بَعَثْنَاهُمَا لَكُمْ أَوَّلًا مَعَ رَدِّ جَوَابِكُمْ وَمَعَهُمَا
مُسْلِمَانِيَانِ وَهُمَا¹⁴ مُحَمَّدٌ وَيُوسُفُ وَكَيْلُكُمْ وَجَابِرُ كُنِيَّتِهِمَا فَإِنْ كَانَ لَكُمْ
سَعَادَةٌ وَأَرَدْتُمْ فَوْزَكُمْ فِي الدَّارَيْنِ يَوْ¹⁵ صُولُ جَوَابِنَا إِلَيْكُمْ وَلِلْمَذْكُورِينَ
بَادِرُوا إِلَى اجَابَتِنَا وَأَسْلِمُوا قَبْلَ حُضُورِنَا وَكُونُوا مَعَهُمْ¹⁶ حَالَهُ
وَاحِدَةً حَتَّى نَاتِيَكُمْ فِي هَذَيْنِ الْيَوْمَيْنِ عَلَى الْفُورِ إِنْ شَاءَ اللَّهُ
تَعَالَى وَهِيَ هِيَ¹⁷ جَارِيَةٌ قِيَامُنَا بِنَفْسِنَا عَلَى أَثَرِهِمْ فَعِنْدَ حُضُورِنَا
إِذَا وَجَدْنَاكُمْ مُسْلِمِينَ فِيهَا وَالْآ¹⁸ قَيْفُصِي اللَّهُ أَمْرًا كَانَ مَفْعُولًا
* وَسَيَعْلَمُ الَّذِينَ ظَلَمُوا أَيَّ مُنْقَلَبٍ يَنْقَلِبُونَ¹⁹ وَأَعْلِمُ أَنَّكَ إِذَا
أَسْلَمْتَ²⁰ كَمَا أَشَرْنَا لَكَ قَبْلَ حُضُورِنَا فَتَكُنْ أَمْنًا عَلَى نَفْسِكَ وَمَالِكَ
وَعَا²⁰ يَلْتَكُ وَكُلُّ مَنْ مَلَكَتْ يَدَاكَ مِنْ قَلِيلٍ وَكَثِيرٍ مَا عَدَا حَقَّ
الْمِيرَى الْمَخْصُوصِ بِهِ فَهُوَ غَنِيمَةٌ²¹ 75¹ وَكُلُّ مَنْ يُسَلِّمْ مَعَكَ مِنْ
الْمَسِيحِيِّينَ²² كَذَلِكَ أَمِنَ عَلَى هَذَا الشَّرْطِ الَّذِي حَرَّرْنَا²³ آتِنَا وَقَدْ
آمَنَّاكُمْ عَلَى ذَلِكَ جَمِيعَكُمْ بِأَمَانِ اللَّهِ وَرَسُولِهِ وَأَمَانِ الْعَبْدِ لِلَّهِ
فَأَحْقَنُوا دِمَاءَكُمْ²⁴ وَصُونُوا أَعْرَاضَكُمْ وَأَمْوَالَكُمْ وَلَا تُغَرِّبُوا كَثْرَةَ الْعَدَدِ
وَالْمَدَدِ وَالْخَيْلِ²⁵ الَّتِي هِيَ مَعَوْلُكُمْ²⁶ وَمَعَوْلُنَا اللَّهُ الَّذِي لَا إِلَهَ إِلَّا هُوَ لَا
تُقَادَرُ قُدْرَتُهُ وَلَا يَنْهَزُهُ جُنْدُهُ كَيْفَ * وَهُوَ الْحَكِيمُ²⁷ الْخَيْرُ²⁸ وَأَنَّمَا يَكْرَهُنَا
الْوَفَاءُ بِالْعَهْدِ إِذْ عَلَّمْتُمْ بِمُقْتَضَى جَوَابِنَا وَالْآ فَلَا وَقَدْ تَحَوَّرَ مِنَّا²⁹ إِلَى
عَامِلِنَا مُحَمَّدٍ عَثْمَانَ ابْنِ³⁰ قَرْجَةَ بِالتَّوَصِيَةِ عَلَيْكُمْ وَأَكْثَدْنَا عَلَيْهِ بَأْنَ
يُعَامِلُكُمْ حَسَبَ³¹ أَمَانِنَا فَإِنْ قَدَفَ اللَّهُ فِي قُلُوبِكُمْ نَارَ الْإِيمَانِ وَاطْمَآنَنْتُمْ

^a ms. sic الله?^b ms. وسلموا^c ms. اجارى.^d Koran

843, 46.

^e Koran 26²⁸³.^f ms. سلمت.^g ms. المسيحيين.^h ms. حر.ⁱ ms. الخيل.^k Koran 61⁸, 73, 341.

ms. اديو.

بالرحمن فَأَخْرَجُوا لِلْمَذْكُورِ وَقَاهُ^٩ يَلُوهُ بِوَاسِطَةِ الْفُقَرَاءِ الْمُرْسُولِينَ
وَلَا تُسَوِّفُوا كَمَا سَابَقَا بِاتِّبَاعِ الْمُضِلِّينَ خُصُوصًا^{١٠} عُلَمَاءَ الشَّوْءِ فَقَدْ
وَرَدَ إِذَا رَأَيْتُمُ الْعَالَمَ يُحِبُّ الدُّنْيَا فَاتَّبِعُوا عَلَى دِينِكُمْ فَلَا تَسْمَعُوا لَهُ^{١١}
نَصِيحَةً مَا دَامَ إِنَّهُمْ يُحِبُّونَ الدُّنْيَا فَمَا هُمْ إِلَّا كِلَابٌ وَلَقَوْلِهِ صَلَّى
اللَّهُ عَلَيْهِ وَسَلَّمَ الدُّنْيَا^{١٢} جِيْفَةٌ وَطَلَّابُهَا كِلَابٌ وَإِنْ رَضُوا^{١٣} أَوْ لَا فَأَمْرُ
اللَّهُ تَعَالَى نَافِدٌ عَلَى رُغْمِ أَنْوْفِهِمْ فَأُولَى^{١٤} لَهُمْ طَاعَةٌ وَقَوْلُ مَعْرُوفٍ
وَلَوْ صَدَّقُوا اللَّهَ لَكَانَ خَيْرًا لَهُمْ وَلَوْلَا آتَى عَلَى نُورِ اللَّهِ^{١٥} وَتَأَيَّدَ مِنْ
رَسُولِهِ^{١٦} صَلَّى اللَّهُ عَلَيْهِ وَسَلَّمَ لَمَا دَعَوْتُ أَحَدًا وَلَا سَأَلَ لِي أَنْ أَحْكِيَ
شَيْئًا وَلَا^{١٧} اسْتَعْلَتْ بِهَذَا الْأَمْرِ الَّذِي أَنَا بَعِنْدَهُ سَاعَةٌ مَا وَهَذَا ائْتَدَارُ
لَكُمْ فَاسْمَعُوا وَانْيَبُوا^{١٨} إِلَى رَبِّكُمْ وَاسْلُمُوا لَهُ مِنْ قَبْلِ أَنْ يَأْتِيَكُمْ
الْعَذَابُ ثُمَّ لَا تُنْصَرُونَ إِنَّ اللَّهَ لَا يَظْلُمُ النَّاسَ شَيْئًا^{١٩} وَلَكِنَّ النَّاسَ
أَنْفُسَهُمْ يَظْلِمُونَ فَيَأْتِيَكُمْ أَنْ تَكُونُوا^{٢٠} ظَالِمِينَ فَتَنْدَمُوا مِنْ حَيْثُ لَا
يَنْفَعُكُمْ^{٢١} النَّدَمُ وَالسَّعِيدُ مَنْ اتَّعَظَ بِغَيْرِهِ وَبَادَرَ إِلَى خَيْرِهِ فَهِيَائِيًّا
إِلَى النِّجَاحِ قَبْلَ قَضِ^{٢٢} الْجَنَاحِ وَالسَّلَامَ عَلَى مَنْ اتَّبَعَ الْهُدَى وَالسَّلَامَ.

Translation

470¹⁸ In the name of God, the Merciful, the Compassionate! Praise belongs to God, the Generous Patron, and prayer with peace upon our Lord Muhammad and his family.

¹⁹ From the Servant, humble in the eyes of his Lord, Muhammad al Mahdi ibn as Sayyid Abdullah to the representative of Britain and of the Khedive ²⁰Gordon Pasha.

We hereby inform you that God (Praise belongs to him the Most High) in his patience and generosity is long suffering, but he does not neglect and he does not turn aside ²¹his wrath from the guilty people, and he is the patron of the believers. The Most High said: God is the patron of those who believe; he leads them out 471¹ of darkness into light: but they who do not believe, their patrons are demons who lead them from light into darkness;

^a ms. سبق.

^b ms. لهم.

^c ms. رضيو.

^d ms. رسول.

^e ms. احد.

^f ms. تكوا.

²they are fellows of the fire, in which they shall remain for ever."^a

He has pointed out [the true way of life] in the glorious Koran and others of his ancient books and ³by the tongue of every apostle, prophet, and faithful devotee, censuring this world and making the wise wary of it. He has called them ⁴to the hereafter and incited them to it, for it is the house of continuance, strength, glory, great honor, the exalted place, ⁵the sublime abode, and the pleasant life. Just as the word of the Most High points out in regard to all this: "Know that this present life is only ⁶a toy, a plaything, a vain amusement, a source of rivalry among you, and a striving for increase of property and children. It is like a rain-growth whose vegetation pleases the unbelievers, ⁷then it withers away and you may see it turn yellow and finally it becomes dry stubble. But in the hereafter [there will be] a severe punishment [for those who seek the glory of this world]; and pardon from ⁸God, and favor [for those who renounce it]. The life of this world is only a deceitful provision. Hasten with emulation after pardon from your Lord, and Paradise, the extent of which ⁹equals the extent of heaven and earth, prepared for those who believe in God and his apostles. This is the bounty of God which he will give ¹⁰to whom he pleases and God is endowed with great bounty."^b

One who is guided aright as to the signs knowns that he who acknowledges the truth of the ¹¹belief in God and his Apostle is very near to God, he must attain his desire, he will get his reward and be given ¹²what souls like and eyes delight in. Verily no one can escape his punishment and penalty and every evil ¹³of this world and the next except through him [God] together with great fear of his [God's] wrath and renunciation of this world and its life ¹⁴and of any reliance upon it. It is transitory, base, deceitful, treacherous. There is no peace in it, and no pleasure ¹⁵in comparison with the great good which is with God in the abode of joy. But whoever loves this world and cherishes it above the ¹⁶next, God will cast him headlong into everlasting hell, as the word of the Most High says: "And he who has transgressed and

^a Koran 2258-259.

^b Koran 5719-21.

has chosen this present life; ¹⁷ verily hell shall be his abode."^a So it is plain that there is no profit in the honor of this world and in its life, wealth and ¹⁸ property, but only prolonged regret in the hereafter. To this effect there has come down from Jesus, son of Mary (upon our prophet and upon Him ¹⁹ be the blessing of God and his peace) the saying: "Oh company of disciples! Pass through this world, but make not your abode in it. Verily I have not found for you ²⁰ in it an abiding place. Take the temples of God as [your] house and take your houses as temples, every one of you also the traveler." 471¹ And from Him (upon whom be peace) [is the following]: "Oh company of disciples! Eat barley-bread with coarse salt, but do not eat except when hungry. Put on garments made of woven hair-cloth and go out from this world saved. Verily I tell you ³ the sweets of this world are bitter in the next and the servants of God are not those who live in worldly pleasure."

And from the Apostle of God ⁴ (God bless him and give him peace): "Two hungry wolves let into a sheep-cote would not do more damage to it than ⁵ the desire of man for condition and high station does to his religion."

It is told that he (God bless him and give him peace) was walking along with a number of his companions ⁶ in one of the streets of Medina when they came upon a dead goat cast aside in it. So he said (God bless him and give him peace) "By Allah, ⁷ Surely this world is more despised by God than this goat by its owners to cast it aside." And because it is more ⁸ despised than a carcass, the Apostle of God (God bless him and give him peace) enjoined upon his companions and the rest of his people his word: ⁹ "Let that of this world which satisfies any one of you be like the provisions of a traveller." And he said (God bless him and give him peace) in giving warning against it: "It may be likened to two things. [The second is that] ¹⁰ this world is like the condition of a traveller under the shade of a tree, then he goes away and leaves it."

There is no guide except God, as also the Most High said: ¹¹ "He therefore who is directed, will be directed to the advantage of his own soul, but he who errs, he will err."^b

^a Koran 7937-39.

^b Koran 10106.

Since this is so, then it is ¹² plain that I am the one who invites to God, and the Khalifa of the Apostle of God (God bless him and give him peace) and that I am the Mahdi, the expected one, ¹³ and this is no boast.

God has authorized me to proclaim mercy upon whosoever obeys him and follows the direction of his prophet Muhammad (God bless him and give him peace), and vengeance ¹⁴ upon whosoever rebels against him and disobeys him and follows his devil, his own inclination and desire, and cleaves to this world. I have ad¹⁵dressed you before this explaining my condition in detail and have invited you to Islam and the faith. You should ¹⁶ have answered with submission and obedience before you had seen what you have seen. And, what is more, that which I told you ¹⁷ before was only to guide you aright, and for the sake of your peace and happiness in your condition and your property, if you had known and understood ¹⁸ the truth of what I said. How good my intention towards you was! And I have not ceased trying to promote your welfare and wishing you good in the hope ¹⁹ that God might open your breast to Islam and that you might turn to the command of God, the king, the all knowing, and that you might be one of those who submit themselves ²⁰ and yield to the Lord of servants and who fear the day of judgement, "a day whereon the master and the servant will be of no avail to one another,"^a nor rank, ⁴⁷³¹ nor property, nor household, nor family, nor condition of wealth. But the promise is true and the threat reliable as ² he who is great in rank and strong in power said: "And he into whose right hand his book shall be given, will say: 'Take, read my book; verily I thought ³ that I should be brought to my account.' His shall be a pleasant life in a lofty garden whose fruits shall be near at hand. ⁴ Eat and drink with enjoyment, because of what you have sent before you in the days which are passed. But he into whose left hand his book shall be given, will say ⁵ Would that I had not received this book and that I had not known what my account is! Would that I had died! My riches do not profit me and my power is gone ⁶ from me.' Take him and bind him and cast him into the fire to be burned, then put him into a chain

^a Koran 4441.

of the length of seventy cubits ⁷ because he believed not in the Great God."^a

And it has been reported to me that your deeds are good externally ⁸ with the people of Islam. But God the Most High said: "But the unbelievers, their works are like the mirage in a plain, which the thirsty [traveller] thinks ⁹ is water, until, when he comes to it, he finds it nothing; but he finds God with him and he will fully pay him his account, ¹⁰ and God is swift in taking account; or, as the darkness in a deep sea, covered by waves on waves, above which are clouds, ¹¹ being darkness one above the other. when one stretches forth his hand, he can scarcely see it. And unto whomsoever God does not grant light, ¹² he enjoys no light at all."^b

So adorn your work with faith and cleanse it from the pollution of unbelief, since you will then become high in position ¹³ and your works will become good externally and internally, and the fruits thereof will be yours.

You have gone to the pains of making inquiry in regard to us ¹⁴ formerly in that you addressed us and sent us a messenger and asked return of the embassy;^c and this is to me ¹⁵ evidence that you are the wisest of the people of your government since they have not addressed me as you have with their profession of Islam. ¹⁶ You alone are excepted. But their wickedness has been revealed to me, that they are the worst of men in unbelief; and they shall perish at my hand company after ¹⁷ company. But my desire for you is escape from this so that you may be safe with those who are safe and that you may be of the perfect who ¹⁸ ponder "upon the creation of heaven and earth"^d and who understand in their sagacity the power of God and they say: "Oh Lord, By no means ¹⁹ have you created this in vain, Praise be to thee, deliver us from the torment of hell, Oh Lord! Verily, whom you cast into hell, him you cover with shame, ²⁰ and assuredly the evil-doers have no helpers. Lord, we have heard a crier summoning to the faith, saying, Believe in your Lord! 474 We believe, Oh Lord, so pardon us our faults and wipe away from us our evils and receive us among the pious, Oh Lord, and give us what you have promised us ²¹ by your apostles and do not cover us

^a Koran 6919-33.

^b Koran 2439-40.

^c See Remark 2.

^d Koran 3188.

with shame on the day of resurrection. Verily, you do not abandon the promises."^a

See how gracious is the answer of God to them in his word: ³"I will not permit the work of him among you who works to be lost, whether it be male or female; the one of you is from the other. They therefore who have left their country and have been turned out ⁴of their houses and have suffered for my sake and have been slain in battle; verily I will wipe out their evil deeds from them, and I will surely bring them into gardens ⁵through which rivers flow, a reward from God and with God is the most excellent reward. Let not the success ⁶of the unbelievers in the land deceive you, it is but a slender provision and then their receptacle shall be hell, an unpleasant couch. But they who fear the Lord shall have ⁷gardens through which rivers flow, they shall dwell therein forever. This is the gift of God, for what is with God will be better for the righteous."^b

The reply which you have written to the dervishes who are shut up has come to me and he whom you mention giving information that ⁹you desire submission, but the interference of the counsellors who are with you hinders you.^c On this account my pity increases for you ¹⁰and for them and for the weak^d who are shut up from me, and I wish for them all right guidance.

I have thought about your condition, standing ¹¹by the obligation God has imposed upon me, and I have written to you this [letter] and it is sent to you by four dervishes of our helpers who have freely given themselves to God in seeking for the joy which is with him, and great is the reward and God will reward them well. They are ¹³Muhammad Aḥmad and Bašīr, those whom we sent to you in the first place with the reply to your letter, and with them are two Muslims, ¹⁴Muhammad Yusuf, your lieutenant, and Jābir (these are their names).^e So if you choose prosperity and desire your salvation in the two abodes, [then] on ¹⁵the arrival of our answer to you and to the [others] named, hasten to reply to us and submit yourself before our arrival and be with them^f

^a Koran 3188-192.

^b Koran 3193-197.

^c See Remark 2.

^d See Remark 3.

^e See Remark 4.

^f See Remark 5.

¹⁶ in one state until we arrive in two days in haste, if God the Most High wishes, and behold he is ¹⁷ my protector.

My intention is personally to hasten after them. So if, on our arrival, we find you Muslim then all will be well; but if not ¹⁸ "then God will accomplish what is decreed".^a "And they who do wrong shall know with what treatment they shall be treated in the hereafter."^b

¹⁹ So know that if you submit yourself, as we have advised you, before our arrival, then our pledge of safety will be for you, your property, ²⁰ your household, and everything which your hands control, both little and great, excepting the special perquisite of the Ameer as that is a booty. 475¹ And whoever of the Christians who are with you that submits himself likewise is safe upon this condition which we have just written. ² We pledge you safety upon this condition, all of you, with the pledge of God and his Apostle, and the pledge of the servant of God. So put an end to the shedding of your blood, ³ and look to your lives and property, and let not the greatness of your number, the assistance and the army upon which you rely, deceive you. ⁴ Our reliance is God, than whom there is no other. His might cannot be measured and his army cannot be defeated. How could it be, seeing that he is "the Wise and ⁵ the Knowing"?^c The fulfillment of the covenant is surely binding upon us as soon as you agree to the conditions in our reply, otherwise not.

A letter has been sent by us to our agent Muhammad Othman Abu Kerjah with orders in regard to you and we have authorized him to deal with you in accordance with our ⁷ pledge.

So if God has put into your heart the light of faith and you continue in grace, then go out to the said man and have a ⁸ conference with him through the mediation of the dervishes who are sent and do not delay, as formerly, in following the erring ones, especially ⁹ the evil counsellors.

[The saying] has come down: "When you see a wise man loving this world, be suspicious of him as to his position in regard to your religion, and do not ever listen to him ¹⁰ in any advice of his." Verily they love this world and are nothing

^a Koran 843, 46.

^b Koran 26²²⁸.

^c Koran 618, 73; 341.

but dogs. His word is (God bless him and give him peace): "This world ¹¹is a carcass and those who desire it are dogs." Whether they like or not, the command of God, the Most High, is executed in spite of them. So the first demand ¹²upon them is obedience and a reasonable reply. If they believe in God, surely it is well for them.

And were it not for the fact that I have the light of God ¹³and the authorization of his Apostle (God bless him and give him peace) I would not have invited any one; nor would it be fitting that I say anything nor ¹⁴busy myself with the matter, for a moment even.

This is a warning to you, so hearken and turn ¹⁵to your Lord and submit yourself to him before punishment comes upon you. Then you will not be helped.

Verily God does not injure man in anything. ¹⁶but man injures himself. So beware lest you injure yourself and repent when ¹⁷repentance avails not.

Happy is the man who is warned by another and hastens to his own good. So come to salvation before your wings are clipped.

Peace be upon him who follows the right guidance.

Remarks.

Remark 1. The letter is not dated in the manuscript. From the sources available it appears that Gordon received only three formal letters from the Mahdi. At least no reference to any others has been found. Of these three the first one, which was received by Gordon March 22, 1884, is translated in full in Major (now Sirdar) Wingate's book: *Mahdism and the Egyptian Sudan* (1891) pp. 111—115, and is dated March 10, 1884.^a The second letter was received by Gen. Gordon Sept. 9, 1884, the day before the steamer "Abbas" was sent down the Nile.^b It together with the other documents was lost in the wreck of the "Abbas". The third letter was received

^a In Boulger's *Life of Gordon*, London 1896, vol. ii. p. 136: "Even the Mahdi himself made his contribution to the general tribute, by sending Gen. Gordon on his arrival a formal 'salaam' or message of respect." Gordon arrived at Khartoum Feb. 18, 1884.

^b *Gordon's Journals*, Sept. 11. The references to Gordon's Journals are made to "The Journals of Major Gen. C. G. Gordon, C. B. at Khartoum" edited by a Egmont Hake, Boston, 1885.

by Gordon Oct. 22, 1884,^a and is translated in full in Appendix U pp. 453—459 of the "Journals". This last letter tells of the wreck of the "Abbas" on Sept. 18, 1884.

This points at once to our letter as the one Gordon received Sept. 9, and which was lost in the wreck of the "Abbas"; but as there is a possibility of other letters of which no mention has been found, further proof is necessary.

The letter which Gordon received on Sept. 9 was sent by means of two Muslims and some dervishes.^b The names of the two Muslims as given in Ibrahim's letter are Mohammed Yusuf and George Calamantino; and as given in the manuscript letter are Muhammad Yusuf and Jâbir. In a letter from Abd-er-Rahman en-Nejumi,^c el-Jâbir is identified with George Calamantino. The letter referred to in Gordon's Journals as being received on Sept. 9 and the manuscript letter were sent by the same messengers.

Muhammad Yusuf was the Italian Giuseppe Cuzzi.^d Cuzzi was taken captive at the fall of Berber, May 26, 1884, and sent to Abu Kerjah, who was in command of the besiegers of Khartoum. Abu Kerjah tried through the mediation of Cuzzi to induce Gordon to surrender, and failing in this he sent him to the Mahdi at Rahad.^e The Mahdi sent him back to Khartoum together with George Calamantino with letters for Gordon. In his Journal for Sept. 11 Gordon says: "Soon after Cuzzi had left for the Arab camp two dervishes came in with the Mahdi's letter." The facts seem to be that, when the messengers from the Mahdi arrived at the Arab camp besieging Khartoum, Cuzzi for some reason or other wanted to get into Khartoum before the letter was delivered, and as soon as he returned to the camp the letter was sent in. As stated in Gordon's Journal, Sept. 11, there is some discrepancy in the account, for he says Cuzzi came into the city "yesterday" i. e. Sept. 10, while

^a See *Gordon's Journals*, Oct. 22.

^b See the letter of Ibrahim Abd el-Kâder in App. A to *Gordon's Journals*, p. 371, which is dated Sept. 9, 1884; and cp. the manuscript letter p. 474 l. 11, 13, and 14.

^c App. A 2 to *Gordon's Journals*, p. 374.

^d *Gordon's Journals*, Sept. 13.

^e R. C. Slatin: *Fire and Sword in the Sudan, 1879—1895*, p. 305. Father Joseph Ohrwalder: *Ten Years Captivity in the Mahdi's Camp*, p. 125 f. Rahad is about 200 miles south of Khartoum.

he says the letter was received Sept. 9. Slatin says^a that Calamantino was admitted into the city but Cuzzi refused admittance. It may be that Cuzzi incurred Gordon's suspicion, and was refused permission to come into Khartoum a second time.

The Mahdi says in the manuscript letter that he has authorized Abu Kerjah to treat with Gordon.^b Gordon says in his Journals for Sept. 13: "Mahdi proposes that I should put myself on my surrender (!) under Abou Gugliz, who is a notorious breaker of the dervish rules." And in a letter from Gordon to Abd-er-Rahmân is the following: "Mahomed Achmed informs us that he ordered Abou Kerjah to convert us to his faith.^c The letter is dated 2nd Zu'l Hejjeh 1301; Aug. 24, 1884.^d In Gordon's Journals Abu Kerjah is consistently called Abou Gugliz.

The following, which undoubtedly refers to our letter and is a good summary of it, is taken from a letter from Abd-er-Rahmân en-Nejumi to Gordon.^e This letter has no date, but it was received by Gordon Sept. 21. It says: "The Imam has written to thee the truth in leading thee to God; and also that which concerns thy salvation and that of those with thee and how thou mayest attain salvation in this world and in the next."

The above evidence points clearly to our letter as the one that Gordon received Sept. 9, 1884.

It is impossible to determine the date on which the letter was written. It must have been after June, 1884, and probably before the Mahdi left Rahad, which according to Ohrwalder was Aug. 8, and according to Slatin Aug. 22. Both Ohrwalder and Slatin are very sparing in giving exact dates.

Remark 2. Just what the reference in ms. letter p. 473 l. 14 is, is not evident. It may be that Cuzzi when he came to the Mahdi represented himself as a messenger from Gordon, and told the Mahdi that he was authorized to tell him that Gordon would surrender if he dared, but that the Ulema of Khartoum prevented him.^f The Mahdi calls Cuzzi in the

^a Slatin, *F. and S. in Sudan*, p. 304—305.

^b Vide ms. letter 474 l. 6.

^c App. M to *Gordon's Journals* p. 397.

^d Aug. 24 is wrong; it should be Sept. 23.

^e App. L to *Gordon's Journals*, p. 392.

^f Ms. letter 475 l. 9.

letter "your wakil" (lieutenant).^a It is impossible that Gordon should ever have offered to surrender and turn Muslim. Cuzzi may have presented things thus to the Mahdi to gain his favor. Ohrwalder says that the Mahdi received him well, loaded him with presents and then sent him back to Gordon with a letter.

Giuseppe Cuzzi had been English Consular Agent at Berber. Shortly before the fall of Berber (May 26, 1884) Cuzzi had been dismissed by Sir Evelyn Baring (now Lord Cromer) for criticizing Baring's plan of opening the road from Suakin to Berber. Gordon therefore thought that Cuzzi had betrayed Berber to the Arabs for revenge. Neither Slatin nor Ohrwalder say anything about Cuzzi as being a traitor, but circumstantial evidence is against him. For after the fall of Berber Cuzzi was sent to Abu Kerjah who was besieging Khartoum. Abu Kerjah sent him to Gordon to induce him to surrender but failed. He was then sent to the Mahdi who received him so well. After the letter had been delivered to Gordon Cuzzi went again to Berber. He evidently had more freedom than Slatin or Ohrwalder. The probability too that he entered Khartoum alone before the letter was delivered points to some double dealing on his part — whether he was plotting against Khartoum or simply working to save himself is hard to tell. If Cuzzi was such a man, it is easy to believe that he posed before the Mahdi as an agent of Gordon. This would also give a good reason why the Mahdi should write this letter. The other two letters were written, each of them, because of some special reason — the first one in answer to Gordon's letter appointing the Mahdi Sultan of Kordofan, and the other to tell Gordon about the capture of the steamer "Abbas".

It may also be that the reference is to the first messages which Gen. Gordon sent to the Mahdi making overtures to him and appointing him governor of Kordofan, the first step in carrying out the British-Egyptian policy of evacuating the Sudan and withdrawing the Egyptian troops. That was what Gordon had been sent to the Sudan to do.

Remark 3. By the "weak"^b were probably meant the wives and children left behind in Khartoum by Muhammadans who

^a Ms. letter 474 l. 14.

^b Ms. letter 474 l. 10.

had gone out to the Mahdi and submitted themselves to him. This was a cool piece of calculation on the part of these men; for, if Gordon held out till the English came, their families and property were safe, should the Mahdi succeed in taking Khartoum they could rely upon their fidelity in the Mahdi's cause to protect their families and property. Because Gordon permitted this he is criticized severely by Father Ohrwalder^a who maintains that the ethics of war are not those of peace and had Gordon driven these "weak ones" out he would have saved on his food supplies and have been able to hold out longer. It was at no time Gordon's policy to hinder those who wished to go out to the Mahdi. He would not, however, permit those who went out to come back again. The men who went may have told the Mahdi that the reason they did not take their families with them was that Gordon would not permit them to do so.

During the siege there were several attempts at conspiracy which Gordon nipped, putting the leaders in prison. The reference may be to such men.

Remark 4. In the letter there are five persons mentioned by name:^b Muhammad Aḥmad, Bašir, Muhammad Yusuf, Jâbir, and Abu Kerjah. Muhammad Aḥmad and Bašir are spoken of as having been the messengers who brought the letter of March 10, 1884. Muhammad Aḥmad is too common a name to be easily identified. There is a Muhammad Aḥmad wad el Bedri who is called by Ohrwalder^c one of the Mahdi's early and favorite adherents. Wad el Bešir is mentioned by Ohrwalder^d as being sent by the Mahdi to head the revolt of the tribes of Gezireh which is between the Blue and White Niles. Slatin^e also mentions this man and calls him a brother-in-law of the Mahdi. Ohrwalder calls him a son-in-law of the Mahdi. These two men are probably the ones referred to in the letter.

Muhammad Yusuf is Giuseppe Cuzzi, and Jabir is the Greek George Calamautino.^f Abu Kerjah's name is spelled variously Abou Gurgy, Abu Girgeh, and Abu Girgah. He is also called

^a Ohrwalder op. cit. p. 152.

^b Ms. letter p. 474 l. 13. 14 and p. 475 l. 6.

^c Op. cit., p. 10. ^d Op. cit., p. 94.

^e Slatin, op. cit., p. 280. ^f Cp. Remark 1.

Abou Gugliz. His full name is Hajji Muhammad Osman (or Othman) Abu Kerjah. Abu Kerjah is written ابو قرجه. In Egypt both ق and ج are pronounced as hard *g*. Gordon's name is spelled in two ways: غردون and جوردن.

Remark 5. Ms. letter, p. 474 l. 16. At first glance this seems to give a clue to the date of the writing of the letter; but, if the letter was written before the Mahdi left Rahad, it would mean that the Mahdi expected to reach Khartoum two days after the messengers with the letter did. There is no means at hand for determining how long it would take the messengers to cover the distance of about two hundred miles between Rahad and Khartoum. It would seem from this that the letter must have been written some time in August — probably after the middle — which would point to Slatin's date of Aug. 22 for the Mahdi's departure from Rahad as the correct one.

Remark 6. In the Appendix to Book III. of Major Wingate's book: *Mahdism and the Sudan*, pp. 535—549, there is a tabulated list of the letters and proclamations of the Mahdi and his successor Khalifa Abdullah Taashi which are contained in a manuscript captured at the battle of Toski, Aug. 3, 1889. In this battle the English completely routed the Arabs, and their general en-Nejumi, the man who was chief in command of the Arabs besieging Khartoum from September on, was slain. In this list of letters there are two given from the Mahdi to Gordon, pp. 24—26 and 26—28 of the letter-book. The date given is Jumada el-Awal 1301, Christian date 1885 (sic). It should of course be March 1884. These letters (the two are one letter with a short postscript of six or seven lines, as can readily be seen by comparing the résumé of the contents with the letter itself) are translated in full in the body of Wingate's book, pp. 111—115. There are in this letter-book one hundred thirty three letters, ninety-nine of which are from the Mahdi. The book contains one hundred forty or more pages, of which pages 33—38 are missing. There is no chronological arrangement of the letters, which run from 1881 to 1888.

Remark 7. In regard to عليه السلام.

In his "Régistre", Count Landberg says: "Que le manuscrit date d'une époque postérieure à la mort du Mahdi, est prouvé parce qu'on trouve parfois après son nom les mots عليه السلام."

This is hardly sufficient proof, for the use of the phrase after the Mahdi's name is found in letters clearly written before his death. There is a document, given as Appendix D to *Gordon's Journals*, which is an answer written by the Ulema of Khar-toum to the Sheikh Abdel Kader Ibrahim and to Wad en-Nejoomi, dated 23rd Zu'l Kada, 1301, Sept. 14, 1884. In this document (op. cit., p. 379) the Ulema complain that the followers of the Mahdi use this phrase in connection with his name. That the fact is so, can be seen from Appendix L. to the *Journals*, a letter from Abderrahman en Najoomi and Abdallah en Noor to Gordon Pasha, where the phrase is used after the word "Mahdi". The examples of its use in this way could be multiplied. The Ulema say that Abd el-Ghani en-Nablusi said in his book, the Hadik en-Nadih: "No one ought to be distinguished by the Salaam excepting the prophets, for one cannot say, 'Ali, on whom be peace'; and this rule applies both to living and dead alike, excepting that a person present may be addressed thereby, for people say, 'Peace be upon thee'.^a In a footnote to the same page: "Peace be on him", the usual formula of salutation to a true believer if alive, and used of prophets when their names are mentioned.

^a Op. cit., p 379.

Monosyllabic Roots in Pampanga.—By CARLOS EVERETT
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One of the most interesting of the Philippine languages to the student of Indonesian phonology is the Pampanga, spoken by about 280,000 people in the province of the same name which forms the northern boundary of Manila Bay.

Altho its territory is contiguous to that of the Tagalog, spoken in Manila and the surrounding provinces, Pampanga presents a variety of striking phonological peculiarities not shared by its neighbor. Among these may be mentioned the following:

1. The lack of *h*, a very frequent sound in Tagalog, Bisaya and Bikol, e. g. Pamp. *ukám* 'judge': Tag. Bis. Bikol *hukám*; Pamp. *ápun* 'afternoon'; Tag. Bis. Bkl. *hápun*; Pamp. *buák* 'hair': Tag. Bis. Bkl. *buhák*.

2. Vocalic change in the first syllable of a root¹, e. g. Pamp. *katám* 'a brush' but *ketáman* 'object brushed'; *kulubún* 'cover' but *kilubúnan* 'object covered'.

3. The treatment of the Indonesian RGH consonant², which in Tagalog, as in most Philippine languages, becomes *g*, but appears as *y* in Pampanga, e. g. Pamp. *yamút* 'root': Tag. Bis. Bkl. *gamút*; Pamp. *uyát* 'vein': Tag. Bis. Bkl. *ugát*.

¹ The term 'root' is employed in this paper in its traditional sense, namely, to indicate the dissyllabic type of base (Brandstetter's *Grundwort*, cf. *Wurzel und Wort in den Indonesischen Sprachen*, Lucerne 1910) characteristic of Indonesian languages. Whatever may have been the prehistoric type of the Indonesian root, which is regarded by some scholars, notably Pater W. Schmidt, Brandstetter and K. Wulff, as monosyllabic, the fact remains that the existing languages of the Indonesian branch *par excellence* regularly build their derivatives on dissyllabic bases, which, be their ultimate origin what it may, are felt and treated as roots subject to no further analysis, and hence may with entire propriety be spoken of as such in any discussion not concerning itself with the very problematic word structure of the parent speech.

² Cf. Conant, *The RGH Law in Philippine Languages*, JAOS vol. xxxi, p. 80 ff.

4. The representation of the indifferent vowel (pepet)¹ by *a*, while it appears regularly as *i* in Tagalog, e. g. Pamp. *ipás* 'roach': Tag. *ipis*; Pamp. *báyat* 'weight': Tag. *bigat*.

5. Metathesis of initial consonant and following vowel, which is generally an *a*, e. g. Pamp. *altáu* <**latau* 'to float': Tag. *litáu*; Pamp. *abyás* <**bayas* 'rice': Tag. *bigás*, this last example showing also the treatment of the RGH consonant and of the pepet vowel in Pampanga.

6. The contraction of two concurrent like vowels, e. g. Pamp. *tân* 'to stop, cease': Tag. Pangasinan *túan*; Pamp. *duñ* 'to reach shore, land (of boats)': Tag. Bis. Bkl. *dúun*. Such contraction is also regular in Ibanag (spoken in the Kagayan Valley, North Luzón), e. g. Ibg. *bāg* 'breech-clout': Tag. Bis. Bkl. *bahág*; Ibg. *big* 'all, nothing but, Ger. lauter': Iloko, Pang. *biig*. Sulu (spoken by the Mohammedan Malays of the Sulu Archipelago) contracts not only originally concurrent like vowels, e. g. Sulu *tō* 'right (hand)': Bis. Bkl. *to'ó*, but also dissimilar concurrent vowels, e. g. Sulu *nōg* 'descend': Bis. *náog*, Tag. (*pa*)*náog*, and those brought together by secondary Sulu loss of intervocalic *l*, e. g. Sulu *ō* 'head': Tag. Bis. Ilk. *ulo*; Sulu *sāh* 'fault, blame': Tag. Bis. Bkl. *sala*. Syncopation of intervocalic *l* also occurs in Tagalog, but less regularly than in Sulu (compare the examples last given), and without resultant contraction, e. g. Tag. *dúan* 'way, road': Sulu *dān*: Bis. Bkl. *dálan*.

7. Apheresis and apocopation of accentless syllables, composed mostly of a single vowel, e. g. Pamp. *tē*, the interjectional short form of *patē* 'dead'; *sak*, beside *asák* 'to pack'; *tun* 'cook rice': Ilk. Ibg. Mal. Kawi, Makass. Bug. Mlg. Samoan, Tahiti, Chamorro *tunu*, Haw. *kunu*.

As a result of the regular vocalic contraction pointed out above (6) and the sporadic loss of an accentless syllable, a considerable number of Indonesian dissyllabic roots have been reduced to monosyllables in Pampanga. Leaving out of account some twenty monosyllabic words consisting of enclitic pronominal forms, accentless adverbial and connective particles, the articles, and interjections (many of these being unquestionably of onomatopoeic origin), there remain about thirty-five monosyllabic

¹ Cf. Conant, *The Pepet Law in Philippine Languages*, *Anthropos* vol. vi.

roots in the language. The majority of these may readily be identified with roots of the ordinary dissyllabic form in other Philippine languages.

I. Roots showing contraction of Pamp. *aa* to *a*:

1. *dās* < **daas* < **daəs*¹ 'arrive': Tag. *daís*.
2. *kān* < **kaan* < **kaən* 'eat': Ilk. *kaán*, Tag. *káin*, Bis. *ká'on*.
3. *māl* < **maal* 'dear, expensive': Tag. Bis. Mgd. Sulu, Mal. Sund. Dayak *mahal*. For loss of *h* in Pamp. see above (p. 1).
4. *pāt* < **paat* < **paët* 'chisel': Ilk. Pang. *paët*, Tag. *páit*, Bis. *pahut*, Mal. Dayak *pahat*.
5. *sāp* < **saap* < **saəp* 'farm hand': Bis. *saúp*, Bkl. *sáup* 'apprentice, artisan's assistant'.
6. *tān* < **taan* 'stop, cease': Tag. *táan*, *tahún*, Pang. *táan*, Bis. *taán*, Mal. Jav. Sund. Day. *tahan*, Haw. *kaa*.

7. *lāt* < **laat* 'all': Tag. *lahút*.

II. Roots showing contraction of *uu* to *u*:

8. *dūn* 'to reach shore, land (of boats)': Tag. Bis. Bkl. Pang. *duun* (with varying accent), Tir. *duiu*, Ibg. *duñ*.
9. *lūb* 'within': Tag. Bis. Pang. Ilk. *lúub* or *luúb*, Tir. *dob*.
10. *lūd* 'proseguir para acabar': Ilk. *líud* 'ruin, destruction, completely destroy'.
11. *lūk* 'bay, inlet': Tag. Bis. Ilk. Pang. Bagobo *lóok* or *lúuk*. Ibg. *lut* (for *luk* where the original surd stop has become in pronunciation the glottal stop and hence has lost its identity; cf. Ibg. *but* in use beside the correct historical form *buk* 'hair': Ilk. *buúk*, Pang. *buék*. Pamp. *buák*). Sulu *lōk*.

12. *lūn* 'cure (meats), preserve or dry (fruits)': Tag. Bis. Bkl. *ló'on* or *lú'on*.

13. *pūn* 'base, stem, trunk, origin, beginning, capital': Ilk. Bkl. *puún*, Pang. *poon(án)*, Tag. Bis. *puhón(an)* Sulu, Mal. Sund. *puhun*. Tir. *fuun*, Mgd. *puun* or *pun*, Ibg. *fun*.

14. *sūb* 'steam': Ilk. *súub*, Pang. *suúb*, which are connected by metathesis with Tag. Bis. Mgd. Tirurai *subu* of nearly identical meaning.

15. *sūn* 'rise (of tide), be borne on the tide': Bis. *suín* 'wander aimlessly, go with the current'.

16. *tūd* 'hit the mark, aim straight, be true': Bis. Pang. *túud* 'true, consider true, believe'.

¹ Wherever *ə* appears in this paper it indicates the indifferent vowel (pepet), which regularly becomes *a* in Pamp.

17. *tūg* 'basket of woven palm leaves': Tag. Bis. *túhug*, Ibg. *tug*.

18. *tūs* 'make good, remedy, repair': Tag. *tíus*.

III. Roots showing contraction of *i* or *u* with the pepet vowel:

19. *sūd* 'a kind of fish corral': Tag. *síūd*, Bis. *sihōd*, Bkl. *siód*.

20. *tūd* 'knee': Tag. Bkl. Bis. Sulu *túhud*, Ibg. *tuád*, Tir. *etūr*, Sund. *tuur*, Toba *tut*, Kawi *tūr*. Kawi and (apparently) Toba have the same contraction. Compare also Toba *buk* 'hair' with Sund. *buuk* and the Phil. cognates in No. 11 above. In this connection it is interesting to note that Pamp. and Ibg. exactly reverse each other in their treatment of the words for 'hair' and 'knee', tho the vocalism of the two words is precisely the same:

Philippine	Tagalog	Pampanga	Ibanag
* <i>buĕk</i> 'hair'	<i>buhúk</i> ¹	<i>buák</i>	<i>buk</i>
* <i>tuĕd</i> 'knee'	<i>túhud</i>	<i>tud</i>	<i>tuád</i>

IV. Roots showing apocope:

21. *tun* 'cook rice' Ilk. Ibg. Mal. Kawi, Makass. Bug. Mlg. Samoan, Chamorro, Tahiti *tunu*, Haw. *kunu*.

22. *sut* 'humiliate oneself to another': Bis. *suta* 'confess publicly'.

V. Roots showing apheresis:

23. *dam* 'borrow': Bkl. *hadám*, *harám*, Tag. *hirám*, Bis. *hulám*. The penultimate vowel, lost in Pamp., is an original pepet. The medial consonant is a good example of the RLD law.

24. *pan* 'perhaps, perchance': Tag. *apán*, *upán* 'perhaps', Ilk. *pan*, *apán*, *papán*, or *agpapán* 'altho', Cebuan Bis. *apán* 'but, however', Panayan Bis. *apún* 'but, however'.

25. *dat* beside *indát* 'quotiescumque'.

26. *pu* beside *apú* 'sir, Mr.'

27. *sak* beside *asák* 'to pack'.

28. *tē* (as interj.) beside *paté* 'dead'.

29. *tan* beside *atán* 'stop, cease'.

30. *tas* beside *atás* 'high, height'.

31. *tin* beside *atín* 'to have'.

¹ Tag. *buhúk*, *túhud* have *u* (instead of the regular *i*) for the pepet vowel by assimilation to the original *u* of the penult. Cf. Conant, *Pepet Law*. Brandstetter, *Prodromus*, p. 41 ff., considers the monosyllabic forms *buk*, *tud* as original, from which the dissyllabic forms are developed by expansion (*Zerlehnung*). Against this explanation, see my *op. cit.*, Table V, Note 2.

The syllable most frequently lost by apheresis consists of the unprotected vowel *a*, either original, as in the case of Pamp. *pan*: Tag. Ilk. Bis. *apán*; Pamp. *pu*: Pamp. Tag. Pang. Bkl. Bis. *apú*; or from *pepet*, as in *dam* (above No. 23).

VI. Words showing contraction following syncopation of *l* < RLD:

32. *ē* (long open *ē* = OEng. *ē*) beside *ai* and *alí* 'no, not', from *a* + *dí*, cf. Ilk. *dí* and *adí*. Bontok *adí*, Pang. *an-dí* and *alí-wa*, Ibg. *zi* (*z* for *d* initially before *i* as in Ibg. *zúlá*: Tag. Bis. etc. *díla* 'tongue') and *arí*.

33. *mē*, from older *mai* from **mali* 'come, go': Bkl. Sulu, Mal. Toba, *mári*, Bis. *um-arí* generally shortened to *mari* in *mari ka* 'come here!' But Pamp. (*u*)*mai* may have been original (see below).

The history of this very common word is as interesting as it is complicated. Made up originally of demonstrative particles denoting place or direction, it has been an easy prey to contamination with other words and particles of similar meaning.

To be connected with the foregoing cognates are Bontok *umáli* in *umáli-ak* 'I come', and, without *um-*, *álika* 'come', where *-ka* is the enclitic 2 pers. pron., Pang. *día* 'here' (cf. *gála díá* 'come here'). Tag. *halí* 'come here'. In these examples we have evidently the demonstrative particle *dí* (cf. Blake, JAOS xxvii, 350 ff.) with the deictic particle *a* either prefixed: Bis. *arí*, Bont. *áli*, Tag. *halí* (with initial breathing as often in Tag.), or suffixed: Pang. *día*. Tag. and Bont. employ the adverb alone as an imperative, while Bis. may either use *arí* alone or with the imperative prefix *um-* in the same sense. Here the base is distinctly felt as *arí*, *áli*, and also in Sulu *mari*, *kari*. But in Bkl. Ma. Toba *mari* we have a stereotyped form with initial *m*, which, after loss of the original *u* of *um-*, was no longer recognized as a prefixed element, cf. Mal. Toba *minum* 'drink' for IN *um-inum*.

On the other hand Ilk. *umái* (generally pron. *mai*), Ibg. *umái*, Tirurai *mai*, in *mai dīni* 'come here', point to a root *ai*, which is actually found in the sense of 'walk, go, come' in both Ibg. and Tir. Magindanau *ai* 'foot' is doubtless the same word.

That there has been a confusion between these two proto-types there can be little doubt, and to either of them could

be referred Pamp. *mai*, Chamorro *mage*¹, and the Polynesian *mai* 'hither, thence' found in Samoan, Haw. Tahiti and Marquesan.

The present study has yielded no cognates for the following monosyllabic roots: *bal* 'to order brought', *dan* 'lower leg', *din* 'to give', *kid* 'to remove from the fire (frying pan, etc.)'.

Puk 'to assign' and *tul* 'a measure for cotton' are Chinese loan words used in mercantile language, *puk* being Chin. 撥 *pu* 'to allot, assign', and *tul* being 斗 咒 *teh r* 'a basket used as a measure for raw cotton'.

It is evident from the foregoing examination of monosyllabic roots that Pampanga, like Ibanag and Sulu, represents a stage of linguistic development much more advanced than the other Philippine languages, which show the un-reduced dissyllabic root so characteristic of both Indonesian and Polynesian.

But while the process of abbreviation was going on in Pampanga, there seems to have been even here an instinctive tendency to restore the dissyllabic character of the affected words which, as monosyllables, were felt to be incomplete, by prefixing a weak, colorless vowel, generally *a*. The movement doubtless took its origin from the large number of words having an initial *a* resulting from metathesis (see above p. 390). Thus, under the influence of *allú* < **talú* (Phil. *télú*) 'three' and *apát* (Phil. *ěpát*) 'four', **dwa* (IN *dua*, *rua*, *lua*) 'two' became *adwá*. Similarly Pamp. *atyán* (Phil. *tian*) 'abdomen', *apyá* (Phil. *pia*) 'noble, good'. In the case of roots used always with formative elements the monosyllabic character of the root was not felt and hence most of the monosyllabic roots denoting action remained in their reduced form.

¹ Cf. Conant, *Consonant Changes and Vowel Harmony in Chamorro*, *Anthropos*, vi, p. 143.

Chicago, April 10, 1911.

A Divine Lament (CT. XV. Plates 24—25).—By J. DYNLEY PRINCE, Ph. D., Professor in Columbia University, New York City, N. Y.

Obverse.

11. *likir* (LID ŠA) *zal* (NI)-*ma-al a* (ID) *nu-ma-al-*
Heart which is full (and) strength I have no
men (DU)
longer.
12. *nin-men* (DU) *kisal-ma* (MAL) *likir* (LID ŠA) *nu-ma-*
Though I am lady, in my sanctuary heart I have
al-la-men (DU)
no longer.
13. *e-ne-am* (RAM)-*ma* (MAL)-*ni ba-da-ul-e en-na sa* (DI) *in-*
His word drove me; when it
ga-mu-ub-dug (KA) *i-de-ma* (MAL) *ša i-ni-ib-gaba* (GAB).
reached me, my face verily it cast down.
14. *ud-ba nunuz-li ag* (RAM)-*gin* (DU)-*na-mu ud-ba me*
When to my progeny I wished to go; then where
li-e-a
were they?
15. *dim-di ud-ba nunuz-li* *ag* (RAM)-*gin* (DU)-*na-mu*
Weakling, when to my progeny I wished to go;
ud-ba me-e li-e-a
then where were they?
16. *ud e-ne-am* (RAM) *An-na ma(ra) i-ir-a-bi*
When the word of Anu to me they brought;
17. *e-ne-am* (RAM) *dimmer Mu-ul-lil-la* (LAL) *ma-ra i-ir-*
the word of Bêl to me when
a-bi
they brought it;
18. *e* (BIT)-*mu-a mu-ši-in-gin* (DU)-*na-ba*
into my house when they came;
19. *xar-ra-an kur-ra mu-ši-in-tur* (TU)-*ra-ba*
upon the way of the land when they entered;

20. *má* *mu-ši-in-gin* (DU) -*ra-ba*
on the ship when they went;
21. *má* *mu-ši-in-us-sa-ba*
on the ship when they stood;
22. *mu* *a nu-ši-in-tur* (TÜ) *ra-ba*
when to they entered.
23. *mu*-(*lu*) *su-e-sir* (BU) -*mal i-ni-in-tur* (TÜ) -*ra-ba*
the men with shoes on, when they entered:
24. *šu nu-lax-xa-ni* (*mu-ši-in*) *ir-ra-ba*
their unwashed hands (on me) .. when they laid them:

Reverse.

1. *ma-an-ga má sag-ga* (MAL)
when, although ruler, on the prow of the ship (I stepped)
2. *ga-ša-an-ga má egir-ra ba-e-šub* (RU) -*a-ba*
when, although lady, on the stern of the ship I trod;
3. *ni* (IM) -*te amar* (ZUR) -*a-bi ba-e-te-a-ba*
when of its own accord that brood drew nigh;
4. *ur-ri me-ri su-e-sir* (BU) *ma-al-lu-ni kisal-ma* (MAL) *mi-*
the foe, having shoes on their feet, into my sanctuary
ni-in-tu
entered;
nakri šû ina šêpišu šênu šaknu ana maštakia irubam
5. *ur-ri-bi šu nu-lax-xa-ni ma-šu* (KU) *mu-ši-in-ni-ir*
that foe his unwashed hands on me he laid.
nakri šû qatâšu lâ mesiâti iâši ubla
6. *šu mu-ši-in-ir ni* (IM) *mu-un-te ma* (MAL) -*e ni* (IM) -*bi*
His hand he laid on me; fear he caused; I fear of him
ma-te
felt.
qatîšu ublamma uparriḍanni
7. *ur-ri-bi šu-ni mu-ši-in-ir me-da mu-un-gam-*
That foe his hand he laid on me; in me he made a bowing
men (DU)
down.
nakri šû qatsu ublamma ina puluxti ušmîṭanni
8. *ur-ri-bi ma* (MAL) -*e ni* (IM) *ba-da-an-te e-ne nu-mu-*
That foe I fear felt for him; he feared
da-an-te
me not.
anâku adluxe ma šû ul iplaxanni

9. *ur-ri-bi tub* (KU) -*mu mu-un-kar dam-a-ni ba-ni-in-tug* (KU)
That foe my garments he seized; his wife he clothed with
them.
ġubāti iṣṣuṭannima aṣṣatsu ulabbiṣu
10. *ur-ribi za-mu mu-un-tar dumu* (TUR) -*niba-ni-*
That foe my jewels he snatched; his daughter he adorned
in-la (LAL)
with them.
nakri šū uknî ipru'ma maratsu iṣkun
11. *ki-ġub* (DU) -*ba-bi am* (A-AN) -*gug me*
His courts I must tread; even I.
manzassu akabbas
12. *dim* (GIM) -*ma ni* (IM) *ma* (MAL) -*šu* (KU) *ki am* (A-AN) -*ši-*
When of my own desire for myself the sanctuaries I
qin-qin
seek;
ina ramânia ašrâti eštenî'e
13. *ud-ba ni* (IM) *ba-te ba-e* (UD-DU) -*ta na-e* (UD-DU)
then fear I feel to go forth, (and) I go not forth.
14. *e* (BIT) -*ma* (MAL) *ba-an-ul-li-en ingar-ma* (MAL) *ba-ab-*
Out of my house they drove me; out of my enclosure
xu-lax-e
they frightened me.
ina bitia urrixanni ina igaria ugallitanni
15. *tu [xu] ni* (IM) -*te-a-dim* (GIM) *giš-ur-ra ud-ba e-ir*
Like a terrified dove on a beam then I went up;
kîma summatum paritti ina gušûri abit
16. *su-din xu tal* (RI) -*la-dim* (GIM) *du* (XI) -*de al-gi-ri*
like a sudin fluttering to a cleft I betook me;
kîma sudinmu pariši ina nigîççi ešteri
17. *me-e e* (BIT) -*mu-da xu-dim* (GIM) *im-ma-ra-tal* (RI) -*en*
me out of my house like a bird they caused me to fly;
ina bitia kîma iççûri ušaprišanni
18. *ga-ša-an men* (DU) *eri-mu-da xu-dim* (GIM) *im-ma-ra-*
though I am lady, out of my city like a bird they caused
tal (RI) -*en*
me to fly.
19. *egir-mu-a e* (BIT) -*mu egir-mu-a gu* (KA) *mu-un-de-de-e*
"Behind me is my house, behind me", I say;
bîti arkia iltanassiu

20. *nin-men* (DU) *eri-mu egir-mu-a gu* (KA) *mu-un-de-de-e*
 "though I am lady, my city is behind me", I say;
bêliku ali arkia
21. *še-ib Ni-si-in-ki-mu egir-mu-a gu* (KA) *mu-un-de-de-e*
 "the brick walls of my Nisin are behind me", I say;
22. *eš* (AB) *e* (BIT) *-gal-max-mu egir-mu-a gu* (KA) *mu-un-*
 "the abode of my glorious temple is behind me", I
de-de-e
 say;
23. *še-ib La-ra-ak-ki-mu egir-mu-a gu* (KA) *mu-un-de-de-e*
 "the brick walls of my Larak are behind me", I say;
24. *gig* (MI) *tuš* (KU) *-imina-mu egir-mu-a gu* (KA) *mu-un-*
 "dark are my seven dwellings behind me", I
de-de-e
 say;
25. *me-e e* (BIT) *-mu e* (BIT) *-mu nu-me-en a-dim* (GIM) *in-*
 I to my house "thou art no more my house", thus
na-gu (KA)
 I speak.
anâku ana bitia ul bîti attam kî . aqbû
26. *me-e eri-mu eri-mu nu-me-en a-dim* (GIM) *in-na-gu* (KA)
 I to my city "thou art no more my city", thus I speak.
27. *na-an-ni-tu-tu ne um-mi-ka-a la-bi mu-ka-e*
 "I cannot enter it"; thus I speak (and) its beauty biteth me.
lâ errubšu aqbîma lalûšu ikkalanni
28. *na-am* (RAM) *-da-ma* (MAL) *ne um-mi-ka (i)-si-iš-bi*
 "I shall be there no more"; thus I speak (and) weeping for it
mu-ta-çi-(gî)
 overwhelmeth me.
lâ uttak- . . . kî aqbîma çixitašu
ušanašanni

Commentary.

This text, which is the last of the Prince-Vanderburgh series, CT. XV, 7—30, has been published with translation by Dr. Stephen Henry Langdon in his "Babylonian Psalms", 1909, pp. 1—6, but without commentary. The Assyrian paraphrase, which is *not* a translation of this text, I have taken from T. G. Pinches "Lament of the Daughter of Sin", PSBA., 1895, pp. 66 ff., which is a parallel, but not an identical text with CT. XV, 24—25. I am indebted to Dr. F. A. Vanderburgh

for his helpful collaboration and assistance in the publication of the entire series.

There can be little doubt that this lament was written and sung by the priests of Nanâ, whose image was taken by the Elamites in 2270 B. C., according to the Prism Inscription of Aššurbanipal, Col. VI, 107—124. Aššurbanipal in 635 B. C. retook and restored the image to its original habitat in Uruk (Erech) amid great rejoicings at his pious act. The goddess had been absent from her shrine for sixteen hundred and thirty five years. The fact that in the present hymn the lamenting deity does not mention Uruk, but Isin, does not militate against this idea, because we know that the dynasty of Isin prided themselves on their cult of Nanâ and that they were especially assiduous in building and restoring the shrines of this goddess. Nanâ's chief sanctuary was E-an-na ('house of heaven') in Uruk (Erech), but she also had temples in Agade (E-ul-maš) and at Ur. This hymn is of particular importance from an historical point of view, as it confirms the Aššurbanipal record. It was, no doubt, sung and composed shortly after the rape of the goddess in 2270 B. C.

Obverse.

11. LID-ŠA can only = *likir* (8897) 'heart'. NI = *zal* = *barû* 'be full', 5314.

13. *ba-da-ul-e*: in Rev. 14 = *arâxu* (*urruxu*) 'drive, cause to hasten'. That UL can mean this is clear from MSL. p. 85, primarily = 'bull'; note *ul* = *naqâpu* 'gore, push', said of a bull, 9144. *en-na* here probably = 'when, as soon as' = *adi* 'until'. 2809. *sa-dug* = *kašâdu* 'reach, arrive at', 9542. *ša* = *lû* 'verily', 7047. *gaba* (GAB); val. *du* = *paṭâru* 'loosen', 4473; GAB also = *labânu* 'cast down', said of the face, Sb. 342 (4481).

14. *nunuz* = *lipu*, 8177; *pir'u*, 8179 'progeny', and *li* can = *ana* 'unto', V. 27, 44. RAM = *ag* = *madâdu* 'love, measure, intend'; note it = *mu'ûru* 'intend', 4744 (see MSL. 21). *me* = *ia'nu*, 10366; *iânu*, 10365 'where'? The combination *li-e-a* is difficult, but *li* = *šuašu*, 1118; *šuatû*, 1119 'that one', so that *li-e-a* here may be regarded as a prolongation of *li* with the demonstrative sense: i. e., 'where are they'. Another possibility is to consider LI here to mean 'stand', since LI = *gub* and *gub* (DU) also = *naûûzu* 'stand'. This does not seem to me so probable as the first suggestion. The

context certainly demands the question 'where are they', or 'where were they'?

15. I regard *dî* after *dim* here as an ES. gloss to denote the correct pronunciation of *dim* = *dunnamû*, 4253; *ulalu*, 4255 'weaking'.

Lines 11—15 indicate the goddess's state of mind on being informed of what is to follow; viz., that she is to become an exile from her children.

16. To *ma* here we must add the postpositive *-ra* as in Obv. 17. Note *ma-šu* (KU), rev. 5.

21. In the above lines, the goddess is made to describe the approach of her captors, and the route they took in removing her from her shrine. First (obv. 19), she is carried by way of the land; then she is placed apparently on a ship (obv. 20—21) to be carried away to Elam. That the captors were regarded as thoroughly alien desecrators is seen from line 23 following, and Rev. 4—5.

23. *su-e-sir-mal*: literally 'skin or leather (SU) of the street' (E-SIR = *sûqu*), the whole combination meaning *šênu* 'shoe' + *mal* = *šakânu*, 5421, i. e., *mu(lu) su-e-sir mal* 'the men who have shoes on' = the profane invaders of her shrine, which must be entered unshod by her worshippers.

24. On *šu nu-lax-xa-ni* 'unwashed hands'; another sign of their desecration; see Rev. 5.

Reverse.

In lines 1 and 2, *ma-an* must = the double corner wedge sign = *dannu* 'mighty', 9955; *šarru* 'king', here probably 'queen', 9961. The suffix *-ga* probably has the force of *kî* = *kîma* which here we may render "though". The idea is that although the goddess was queen and lady, she was compelled to step on the hostile ship, which was to bear her away from her shrine and people. Cf. the parallel from Pinches cited by Radau, Misc. Sumer. Texts, 1910, p. 386 and n. 1. The verb RU = *šub* in our text = *nadû* 'set, place', *scil.* here 'foot', corresponds to the Pinches version *kar* = *kabâsu*.

3. I render *ni* (IM)-*te* 'of their own accord, as IM clearly means *ramânu* here (Fossey, 4192) and not 'fear'. The 'brood' *amar* (ZUR) = *bûru*, 9068, 'approaches' (*te*) her shrine to molest her of *their own volition*.

4. Now begins the Assyrian parallel from PSBA., xvii., p. 66, line 6, in this line an exact translation. Note the relative Sumerian suffix *-ani* in *ma-al-la-ni* 'those who have', &c. For *kisal* = *maštaku*, see obv. 12, and cf. IV. 27, 8—9b.

5. *lax* = *misû* 'wash', Sb. 76. Note also *ma-šu* (KU) for *ma-ra* in obv. 17.

6. The Assy. *uparridanni* 'he hastens me away'; "hustles" me out' (!) is a translation of a parallel text. In our Sumerian line *ni* (IM) is the direct object of the verb *te*; IM-TE = *puluxtu* 'fear', 8465. Note below on line 8.

7. *gam* = *qadâdu* 'bow down', used of the neck *kišadsu*, Fossey, 3664. It is rendered by the Assy. parallel *ina puluxti ušmiṭanni* 'in fear he lowers me'; from *maṭû* 'lower, decrease'.

8. Cf. line 6 rev. with this, and note the omission of *nakri šu* = *urri-bi* from this line. The Assyrian translator uses *adhux* 'I am disturbed' for *ni* (IM) *ba-da-an-te* 'I feel fear for him'.

9. *kar* really means *ekêmu* 'seize, snatch', 7740, in contrast with the more vivid Assyrian *išxuṭannima* 'he tears it off me'.

10. *za* here for Pinches *za-gin* = *uknî. tar* (*hud*) means 'cuts off violently'. The Pinches version reads *maratsu* 'his daughter', which is not indicated here by the sexless word *dumu* (TUR) 'child'.

11. *gug* = *kabâsu* 'tread', 1372. Note the overhanging *me*, clearly the first personal pronoun.

12. *dim* (GIM) = *šumma* 'if, when', 9125; = *kî* 'as, when', 9120.

13. I render *ba-e* (UD-DU)-*ta* as dependent on the preceding verb. That the prefix *na-* can mean 'not', as a variant of *nu*, is seen from Fossey, 796—797.

14. On *ul*, see obv. 13. *xu-lax-e* = *galātu*; *gullutu*; *šuglutu* 'terrify', Fossey, 1061—1063.

15. Pinches's form *paritti* (thus corrected by Langdon) is of uncertain meaning. Cf. IV. 22, 5a: *labartum parittum* (?). The form *abit* Langdon translates as if from *nabātu* 'repose', but it is from *בית* 'dwell'. This is not indicated in the present Sumerian text, which plainly signifies 'go' = *e-ir*.

16. RI = *tal* = *parâšu* 'fly'. 2571. *du* (XI) = *nigiççu* here is undoubtedly cognate with *di-da-al* = *nigiççu*, PSBA. xvii. 65; *dû* = *di*. The usual ideogram is *ki-in-dar*, *ki-in-dir*, 9683.

gi-ri = *gir-ri* = *šēpu* 'foot'; *tallaktu* 'going'; simply = 'go'. I regard *ešteri* as an *ištafal* from *a'ru* 'go, proceed'.

18. I render *gašan* 'lady' here, just as *nin* may mean both 'lord' and 'lady'.

21. *še-ib* = *libittu*, 7492. *Ni-si-in-ki-mu* 'my Isin'. NI has the value *i* as well as *ni*.

23. *la-ra-ak-ki-mu* 'my Larak' = Larsa (?). Jastrow suggests (by letter) that *larak* may mean 'a grainery'. My interpretation of the combination agrees with this; viz., *la*=*lalû* 'fullness, plenty' (Fossey, 530) + postpos. *-ra* + *ak* = *epêšu* 'make'. The combination *la-ra* + *ak-ki* would then mean 'the place (*ki*) which is made (*ak*) for plenty' = 'storage' (*la-ra*).

24. 'Seven dwellings' probably refers to her shrines.

27. *ne* 'this' = *annû*, 4580. See also next line below.

28. *ma* (MAL) -*ma* (MAL) = *bašû* 'be', 5430. In 11604: *isiš* = *nissatu*; *çixtu* 'lamentation'. A-ŠI is the *bakû*-weep-sign. I render Pinches's parallel *çixita* as equivalent to *çixtu* 'weeping'. *Ušanâšanni* 'it overwhelms me', from שׁנ; cf. IV. 7, 14—15a: 'he shakes him' = *itanâšâšû*.

Indo-Iranian Word-Studies.—By EDWIN W. FAY, Professor in the University of Texas.

1. A good deal of attention has been paid in late years to Foy's proposal (KZ. 35, 31) to separate Iranian *hačā* 'ab, ex' from Skr. *sacā* 'cum, unā cum'. To solve this problem seems, however, a task of no great difficulty. Authorities so out of date as the Latin lexicon of Lewis and Short seem to me in their note on *secus* 'secundum, aliter' to present the right point of view for the solution of the semantic problem, and if modern observers differently conceive the problem, almost nobody seems to doubt the cognation of *secus*¹ with *sequitur*, nor of Skr. *sacā* with *sācate*.

2. In Etymology, as well as touching the Homeric question, there will always be chorizonts, owing to the difference in human temperaments and the inherently greater ease of analysis as contrasted with synthesis. But temperament or no, preponderance of evidence now throws a searcher into one camp, now into another. Temperamentally, I sympathize with the antichorizonts, and certainly in regard to Iranian *hačā*, the usage of which I now propose to examine, on the basis of the examples collected by Bartholomae in his magnificent lexicon. Now Bartholomae compares *hačā* with Skr. *sacā*, but not without acknowledging that he feels the force of Foy's objections. I suppose, however, that it is on the legal principle of asserting definition from usage that he rubricates his examples as though the primary sense of *hačā* were 'from'. But if *hačā* is cognate with *sacā* it were well to attempt a rubrication based on 'cum' as the approximately original sense, that is for Indo-Iranian.

3. Sporadically in Avestan, and still less in Persian, *hača*, though we more conveniently render it by 'from', is combined with the instrumental, which is not, on the face of things, a

¹ The notion of inferiority clearly arises in our colloquial description of cigars and other goods of poorer quality as "seconds".

case to indicate the separative relation. But we can often here restore the sense of 'cum', e. g. in Y. 10. 17 (ap. Bthl., 1751, II. 1. 2),

arəzataēna hača tašta zaranaēnem aoi taxše

where, though as regards the context *argenteo ex poculo aureum* in <poculum> *affundo* is the letter rendering, yet *arg. cum p.* may be defended as the original conception, cf. in Latin the following, albeit far less concrete, examples from Ennius: Ann. 175, *tum cum corde suo divum pater atque hominum rex | effiatur* and, much more specifically, *ib.* 540, *effudit voces proprio cum pectore sancto*.

In the latter example *cum* is attached to a "sociative" with which it does the work of an *abl.* of means, but in both contexts the combination with *ef-* is noteworthy, and from a usage like 540 the separative relation might have developed. In such contexts as this (see Vahlen in Rh. Mus. 14. 566 for other examples) *cum* might also have developed—or shall we say have sunk to—use as a mere case exponent. This is what has happened, in a sense, with OPers. *hačā* which, though used with the instrumental, is an invariable case exponent of the ablative.

4. In Old Persian, the adjective *ha-miθriya-* 'rebellious' is construed with **hačā* + *abl.* Etymologically *miθriya-* belongs with Skr. *methete* (dual) 'inter se pugnans, altercantur'. I see here a 'compromise construction, as though in Latin (1) *alienatus* [*a*] + *abl.* had been so associated with (2) *altercans cum* + *instr.* as to yield * (3) *alienatus cum* + *abl.*; or as though in Greek the interplay of (1) ἀλλοτρίως τινός and (2) ἀλλοτριῶσθαι [συν] τινί had yielded * (3) ἀλλοτριῶσθαι <συν> τινός. For the general psychological problem involved cf. Latin *divortium facere cum aliqua*, and the English conflict between *differ from* and *differ with*. In Irish, *fri* 'adversus, in' reached the sense of 'cum' in comparisons ("gleich gegen = gleich mit"), which developed into a sociative and instrumental 'cum', and at last, with verbs of separation, into 'ab, ex' (cf. Windisch, *Irische Texte*, Wrtbch., pp. 577—578). The following examples are in point: Bh. 2. 2 (= 1750, II. 1. 1. C), *dahyāva^h tyā hačāma^h hamiθriyā abavaⁿ* = regiones quae cumme altercantes factae sunt; Bh. 1. 11 (= 1778, top, s. v. *ham*^o) *pasāva^h kāra^h haruva^h hamiθriya^h abava^h hačā kaⁿbujiyā^h* = inde populus universus stomachatus fuit cum 'ambyse.

5. In the Gāthic passage Y. 37. 2 (= 1749, II. 1. 1. B), *yōi gəuš hača šyeinti* = qui a bove habitant, we might rather interpret by qui cum bove stant (for habitant), and Mills renders by "who abide beside¹ the kine".

6. Common in Gāthic as in later Avestan is the locution *ašāt hača* which verbally = *ritu*² *cum*, but idiomatically *e ritu*, *e veritate*. For the origin of this locution we might assume a contamination of an Indo-Iranian **rtād*³ 'rected', combined with **sacā rtena* 'cum rectitudine' (cf. the actual form *án-rtād* "um der Sünde willen", Delbrueck, ai. Synt., § 74), but we will do better now to enquire what *sacā*, instrumental of a noun *sac-* 'a following, pursuit', might mean, and I would indicate my answer to the question by rendering *ašāt hača* by 'e-ritu *consequentia*' or, sacrificing the case relation, by 'ritum *secundum*', cf. *secus consuetudinem* in CIL. 5, 4017; and *secus merita eius*, Inscr. Orelli 7, 70.

7. But *ašāt hača* 'ritum secus' is a phrase so trite in its adverbial sense that we shall do well to examine its less phraseological uses, e. g., Y. 51. 5 (= 1749, II. 1. 1. B), *yaθā ašāt hača gam vīdat vāstryo* = num per ritum bovem acquirat agricola (ind. quest.). Here the ablative alone expressing cause or rather consequence, would suffice. but *hača* reinforces the consequential idea. Similar are Y. 43. 14, *ašāt hača fraštā* = <haec petitio> ritum secus recipiatur; Y. 53. 1, *yezi hōi dāt āyaptā ašāt hača* = ut ei det maiestates ritum secus; Y. 45. 4 a. h. *vaēdā . . yē im dāt* = ritum secus (per r.) cognovi..quis eam <vitam> faciat; Y. 44. 17. perhaps especially perspicuous because of *rāθemō*, *yē rāθemō a. h.* = qui socius ritu<m> secus. With other nouns note Y. 32. 2, *xšaθrāt hača . . paiti-mraot* = per regnum . . respondit, V. 9. 2, *yaoždāθryāt h.* = purificatione<m> secus.

8. Semantically, general lines of reasoning strongly recommend the definition of *hačā* by 'in consequence of' (see § 6), and the combination of *hačā* in this sense with the ablative is just what we should expect, cf. Delbrueck, ai. Synt. § 74, "nicht selten übersetzen wir den Abl. durch in Folge von". This

¹ We might restore the sense of 'in-the-train' to *hača*, see §§ 6, 9.

² Interpret *ritu* according to the gloss *ritus* ἁγνεία, i. e. 'religio, pietas'.

³ I am transcribing these forms as though they were Sanskrit.

definition adequately absolves the examples under Bartholomae's rubric II. 1. 3 (= 1750), to-wit: V. 18. 1, *diwžaṭ hačā āθrava sanhaite* = fraudis causa (better fraude<m> secus) sacerdos nominatur. Further note Y. 35. 10 (= 1751), where *ašāat hačā* (= ritu<m> secus) is rendered by Bartholomae (col. 88, top) as "um des Aša willen" but by Mills as "by reason of thy Righteous Order": here the prior rendering may be etymologically justified by "in pursuit of", and the latter by "in consequence of".

9. With persons, the combination *hačā* + ablv. designates the agent, the person in consequence of whom the act is performed. Examples are: V. 19. 6 (= 1750), *barəθryāt hačā zāviši* = matre ab vocatus sum; D. 6. 3 (= 1751) *hačā-ma^h* = a-me <mandatum>, where we might think of 'in attendance upon' as the primitiv sense of *hačā*.

10. The next examples are of *hačā* with the ablative after verbs of fearing. The act of shrinking which is the physiological expression of fear lies, I take it, behind the Vedic construction of the ablative with verbs of fearing, and the same note accounts for separatives as represented in the Latin locution *ab aliquo metuere, timere*. In the Persian and Avestan usage of *hačā* with the ablative I suppose that the simple ablative, expressing the idea of (shrinks) 'from', has yielded to a somewhat phraseological (shrinks) 'in consequence of'. The examples I have selected are P. 21 (= 927, mid.) *niwyeiti zī...ātarš...hačā...aiwyo* = metuit ille...ignis ab aquis; Yt. 10, 99 (= 1748, II. 1. 1. β), *yahmat hačā fratərəsənta* = quo ab metuebant; D. 5. 2, *dahyāva^h...tyū hačā-ma^h atarsaⁿ* = regiones...quae ab-me(d) metuebant; Bh. 1. 13, *hačā daršmaⁿ(?) atarsa^h* = <populus> ab <eiūs> saevitate metuebat; Bh. 4. 5, *hačā draugā^h daršum patipayā^huvā* = a fraudulentia valide cave; D. 4. 3, *imam dahyāum a^hura^hmazdā pātuv hačā haināyā* = hanc regionem, A. M., servato ab exercitu.

11. In the locution with verbs of fearing *hačā* 'in consequence of' had sunk nearly to the level of being a mere case exponent (cf. Brugmann, Kvg., § 593, and note the Spanish use of exponential *à* before names of personal direct objects), and there was the same possibility with verbs of obtaining and demanding (= seeking to obtain), which took a separative case, e. g. Homeric *παῖδός ἐδέξατο* = (a) filio accepit, Skr. *grhṛiyāt sādhrutah* = 'accipiat (a) bono', Latin *Hinnād cepit* (CIL.,

I. 530); ἀπατεῖν τινός (ἐκ-, παρὰ-) = postulare (ab) aliquo, Skr. *kenā ambho yācitam bhūyāt* = per-quem aqua petita <est> a-rege. Iranian examples are: Y. 44. 17 (1749, II, 1. 1. B, cf. col. 1670), *kuθā zaram čarānī hača xsmat* = num voluntatem impetrem a vobis¹ (= per vos, in Folge von); Bh. 1. 14 (1750, II, 1. 1. c) *hačā amāxam taumāyā parābartam* = a nostri (sic) gente ablatum; Y. 62. 7 (1748, II, 1. 1. β) *vīspaēibyō hača izyeiti hubarētīm* = omnibus ab postulat bene-sacrificatum; Y. 31. 14 (1749, II, 1. 1. B), *yā išudō dadentē dāθranam hača ašāunō* = quae postulata fiunt debitorum (neuter) ab Aša-discipulo.² — In this category we may, with some reinforcement of the etymological sense of *hačā* (see §§ 6, 9), render by 'with compliance from' (i. e. on the part of).

12. With the verbs of obtaining (cf. Lat. parare) we may associate verbs of begetting (cf. Lat. parere), satisfying ourselves by citing the one example of Yt. 13. 87 (1748, II, 1. 1. β), *yahmat hača frāθwərəsat nāfō* = quo ex [cum] procreavit gentem.

13. Much the larger number of examples of *hačā* + abl. follow after verbs of motion, and it hardly seems likely that here we have a mere casual exponent brought over from the separative connotation with verbs of fearing (§ 10). For this usage it is tempting to seek for *hačā* direct derivation from a rootnoun **sek^w*, quasi 'iter, cursus, trail, track', a definition certainly justified *a priori* by the usage of verb forms of the root *sek^w*. This leads us to the simple definition of *hačā* by 'away, weg (von) &c.' (cf. Fick-Stokes, Wtbch., p. 296).³ Still, in matters of definition the argument *a posteriori* furnishes the line of procedure I prefer to follow, and it is worth our while to ask whether, in the construction of verbs of motion with *hačā* + abl., *hačā* did not originally go with the verb, somewhat in the sense of 'secundum' (= along), e. g. in Bh.

¹ Mills renders by "shall I proceed to that conference with you"?

² This is what I understand Bartholomae to mean by his rendering (col. 733, mid.): die Schuldforderungen die auf Grund der Buchungen an den Aša-anhänger gestellt wurden. Mills renders by "What prayers with debt-confessions are offered *with* the offering of the holy".

³ The assumption of a root noun *sek^w* 'trail, track' leads to a pretty result for a somewhat isolated usage of *ēpi* viz: as in a 278, β 197, *ēēdva* | πολλά μάλ', ὅσσα εἰσσε φιλῆς ἐπὶ παῖδος ἐπεσθαι. If we read **ēpi* here, we have a reference to the route of the homegoing bride. In form, we may compare skr. *me saci* (CBr. 4. 1. 3. 7) 'in my support, mihi auxilio', but literally something like 'mei (gen.) <in> comitatu'.

2. 12 (= 1750, II. 1. 1. b), *pasāva¹ adam nijāyam hačā bābī-rauš* = postea ego abii secundum Babylone [unless in a military context like this *hačā* meant in expeditione(m)], i. e. 'along' or 'on' from Babylon. In such contexts, if *hačā* were subsequently drawn to the noun, 'secundum' would pass through 'porro'¹ to 'ex'. — Again, in sentences containing verbs with plural or joined subjects or objects, *hačā* in the sense of *unā*, really to be taken with the verb, might have been drawn as a mere exponent to the separative ablative following. Examples: V. 5. 19 (1746), *yaoždya tačinti āpo zrayanhat hačā pūitikāt avi zrayō vouru-kašēm* = purificatae ruunt aquae una <a> mari P. ad mare V.; Yt. 10. 39 (1746), *zarštvaciṣ vazēmna hačā bā-zubhyo* = tela quidem .. missa unā <a> lacertis; V. 3. 7 (1747), *daēva han-dvarēnti..hačā gərədāda* = diaboli con-currunt..unā²<a> fossa; Yt. 9. 10 (1747), *apa-barāni ūva šuḍemčā baršnēmčā hačā mazdā dāmabyō* = au-feram ambas famemque sitimque unā <a> creatoris locis; V. 9. 53 (1747), *ahmat hačā asanhatčā sōiθrāatčā axštāt .. ižāčā ūzūitišča* = eo unā <a> locoque domoque assistet .. fortunaque .opulentiaque; Yt. 8. 32 (409, s. v. *us-hən-dava-*), *dunman ham-histēnti us-həndavat hačā garōiṣ* = vapores constant (= colliguntur) *us-hindu-* unā <ex>-mari.

14. Far be it from me to assert that these restorations of a vanished sense to examples of a developed *hačā* — a restoration that may be diagrammed in part by saying that *unā* <a> yielded [*unā*] *a* — prove an original meaning of 'unā, simul', but it is well to show from extant examples that the developed sense may be but an accident, a mere consequence of the word's having become otiose in certain contexts; and if *hačā* = *unā* with verbs of motion came to be felt as otiose, its other ablative connections — I particularly think of verbs of fearing with their note of physical recoil³, see § 10 —

¹ i. e. Eng. 'forth'. — I find in the rather full English-French lexicon of Fleming and Tibbins that *forth* is defined by "en avant, ensuite; dehors, au dehors &c." This ought to mean that *aller ensuite* may be used to replace *aller en avant*, but this usage is unknown to several high authorities on French diction whom I have consulted.

² The tautology of *con-* and *unā* may be compared with the doubled *αμα* with *επομαι* in Homer (ι 371).

³ Cf. *φεύγειν* = 'to flee or escape from' (with gen., Odys.), but *φύλα* = *φόβος*, *δειλα*' (so Hesychius; cf. Lith. *būgti* 'terreri').

rendered it liable to be taken up as a mere casual exponent. With verbs of fearing, 'in consequence of' readily yielded 'from', and we bridge over to the purely local sense by assuming the start to have begun from the nouns of place-persons like Skr. *Dyāus*, Greek *Ἄιδης*, Latin *Orcus*.

15. The local sense may also be glimpsed in a context like the following where, after describing the origin of two mountains, the text continues, Yt. 19. 2 (1747), *ahmat hača garayō fraoxšyan* = inde successim (= ensuite) <hi> montes procre-scunt. Also note Yt. 19. 34, where *vaēnəmnəm ahmat hača xʷarəno . . frašusat* (= evidenter eā ex gloriā . . abscessit) may be etymologically realized by thinking of English 'to part *with*', contaminated with 'to (de-)part *from*'.

16. In the old Persian we find a rather neat testimony to the rôle I have assigned, in the development of the idiom of *hačā* + abl., to the construction after verbs of fearing, viz: D. 4. 2 (1752), where we have *iyam dahyāuš . . hačā anīyanā naiy tarsatīy* = ea regio . . cum (sic) <a> hoste non metuit. Here we have the instrumental (cf. Bartholomae in Gr. Ir. Phil. I § 378. 6) retained with *hačā* (= 'in consequence of').

17. A quite isolated accusative regimen (cf. Lat. *secus*, *secundum*) is found in V. 12. 1 (1752), where *hača* is taken in the general sense of 'ad' (= as regards), *čvat aēšəm upa-mənayən puθro hača pitərəm* &c. = quamdiu eorum <funera celebrantes> manent, filius propter patrem &c., where I take *propter* for 'in consequence of'. In V. 5. 1, 2, *hača* 'from' is combined with the accusative in the locution 'from the tops of the mountains' (= *hača barəšnavō gairanəm*) to the depths of the valleys' (= *avi jəfnavō raonəm*), and conversely; cf. also Yt. 10. 67 (1752) 'from region to region' (*hača karšvara avi k.*). In both these locutions 'secundum' (= down along, cf. *sec. flumen*) would serve, i. e. (1) 'down along the mountains <in>to the valleys' and 'along the valleys <up> to the mountains, and (2) secundum <alteram> regionem ad <alteram> r. We have besides (3) Y. 61. 5 (1752), *yača him janāma . . vīspāiš hača karšvan yāiš hapta* = ut eam expellamus . . universis [cum] <ex> regiones (sic) illis septem, where *hača* takes an instrumental of the adj. and an accusative of its noun. Here perhaps *hača karšvan* (= secundum regiones) represents a use originally distributive (cf. Lat. *in dies*), i. e., 'along region

after region; which tended to develop to the sense of *ultra* (*praeter*) *regiones*.

18. I think I have now shown how, starting with an etymological sense of 'in consequence, ensuite, in Folge', with instrumental regimen, we account, in not all too complicated a manner, for the development of a sense approximating 'from', which made *hačā* a fit exponent — or shall I say coefficient? — for the ablative. With the accusative, the sense of 'secundum' may have developed into 'ultra' (= 'beyond, past').

19. This brings us to the support chiefly relied upon by the chorizonts who would separate Iranian *hačā* from Skr. *sácā*, viz: OIr. *sech*, defined by Zeuss as 'praeter, ultra, supra, extra'. The cognation of *sech* with the root of *sechim* 'sequor' seems to me properly upheld by Fick-Stokes (l. s. c), and by Brugmann (Kvg., § 618), as against Foy and Thumb (see Walde, s. v.).¹ Thurneysen in his grammar defines *sech* by *vorbei an* (Eng. 'along past', often simply 'by'), and compares Lat. *secus*, but it does not appear whether he derives *secus* from *sequitur* or not. As I see it, if we start with the sense of 'following', i. e. 'in attendance upon', we come easily to 'alongside of' (a person) and then to 'by', and finally 'past, beyond', cf. e. g. in Windisch's Texte, p. 207, 26 *luid seocu*, which means <saxum> iit praeter eas. In other contexts *sech* may be rendered by our English use of *via* = 'by way of, Germ. über' in the address of a letter. See the description of a travel route in the Scél mucci Mic Dáthó § 20 (Windisch, l. c. p. 106, 5 sq.) where *sech* is followed by various names of places 'past' which the traveller went. The adverbial use of *sech* (= "außerdem") is etymologically given by 'folgich; besides'. Welsh *hep* 'sine' has developed on the lines of Osc. *perom* 'sine' (: Lat. *per*) "eigentlich 'darüber hinaus'" (Walde, p. 574).

Sanskrit sakā.

20. As a corollary to the discussion of Iranian *hačā* a word may be said of Skr. *sakā* which occurs one each in the Rig and Atharva Vedas, and both times in a hymn which is a charm against snakes (or, for the Rik hymn, against poison

¹ I am entirely skeptical as to Walde's explanation of *sēd*, which I am beginning to define by 'away, weg, via' and to connect with *śōś*, see Class. Phil., 4. 301, fn.

in general). I am prepared to admit that each of the hymns (RV. 1. 191 and AV. X. 4) is popular rather than hieratic in point of diction and that linguistically considered they are late. But religiously considered, a snake charm is likely to be early and when in such a charm a word is found that is virtually absent from the other literature¹ that word is no less likely to be a technical archaism than a popular neologism. According to the lexica (supported by native authority) *saká-* is a diminutive of the article *sa-*, being defined as *dieser geringere*, — *winzige* (PW²), and compared with *eṣaka-* *yaká-* (PW¹). These comparisons are not illuminating, for *eṣaka-* is not genuinely extant, and *yaké* in RV. 8. 21. 18 (*anyaké yaké* = *allicunque quicunque*) seems to me clearly equivalent to a Greek **ô-tives* (sic)—that is to say that *ya-ka-* compounded here does the usual work of *yah kah* (+ *-ca*). But if *saká-* really is a derivative of the article, I think rather of the *-c(e)* of *hic*, *illic*, *istic*, though this raises the question whether we restore **ke* (so Brugmann) or **ke* as the startform of Lat. *-ce*. For the full adjectivization of *sa-ká-s*, as compared with *illi-c(e)*, cf. Lat. *ipsus* | *ipse*.

21. The passages for *saká* are, in translation, as follows, "The little girl of the Kirátas, *she the little one*, digs a remedy" (Whitney's translation of AV. X. 4. 14) and "*This little bird*, so very small, hath swallowed all thy poison up" (Griffith's RigVeda, 1. 191. 11), and I can but think it curious that the two most genuine uses of one word are found in descriptions of antidote procurers. In either case *saká* may be a participial and mean 'sequens' (= *quaerens*, cf. *quaerit* of the antidote-seeker in Aeneid 4, 513—515), or even 'secans'; or it may be an instrumental of a noun *sa^{sk}k^o* 'bill' (= *gladium*; *rostrum*), allied to Lat. *sacena*, and *saxum*. If we were quite sure that *saká* meant 'small', we might still derive it from the root of *secat*, in the sense of 'segment' ('fragment'), cf. Eng. *snip* and *bit*.²

¹ Of course I have at my command no other guide to usage than the Petersburg lexica.

² This semantic correlation perhaps obtains in the following words, Lat. *minor* (Fay, AJP. 26, 176), *μικρός* (ib. 177), Lat. *paulum* (ib. 188), *parvus* (194), ? *vīlis* (202), Skr. *dabhrás* (385); further cf. Skr. *kṣudrás*: *kṣód-ati* (so Uhlenbeck).

Sanskrit *sācis* (advb.) 'sidewise. aside'.

22. The relation of meaning between *sācis* and *sācate* 'se-quitur' is, as Uhlenbeck recognizes in his lexicon, not obvious. I define *sāci-*, spoken of a dependant, a pedisequus, one of the suite, by 'alongside of, beside' (cf. Ir. *sech* § 19) whence by subsequent restriction—or enlargement?—'on (the) side; aside'; cf. Eng. *aside from* (with a sense near to the sense of Welsh *hep* 'sine' (§ 19, *fin.*), and *beside* in "beside the question, the mark" &c.

Sanskrit *sak-thān-* 'thigh'.

23. With the root of *secat* I would join Skr. *sak-thān-* 'thigh' One cannot read his Homer and find *μηρὸς ἐξέταμον* (= "the thighs they cut off") without realizing that **sektō-* 'cut' would constitute a very proper designation for the thigh¹, cf. Eng. 'cuts', of the different portions of a slaughtered animal. Flexionally, *sakthan-* has been modelled on *asthān-* 'bone'².

Two Sanskrit Words for the Hand.

24. I have, in another place (AJP. 31, 416) explained Skr. *añ-gū-ṣṭha-s* 'thumb' as a compound of three members = 'in-manu-stans'. In the same essay (pp. 416. 419) I interpreted the startform **tri-st(h)os* 'third' (but **tri-st(h)is* in Latin *testis*) as 'tip-standing' (of the left mid-finger), and the startform **ksw-ek(s)-stho-s* 'sixth' as 'co-ex-stans' (of the second thumb in the digital enumeration).

25. In view of these three finger-names in *-stho-s* (*-sthi-s*) — with which we may do well to compare Gr. *παλα(ι)-στή* 'palm' —

¹ Possibly *μηρὸς* originally simply meant 'cut', and belongs with *μέρος* 'part', to a root *mēr-*, found in Lat. *mor-d-et* 'bites'.

² The phonetic difficulty with the relation of Lat. *ossi-s* (gen.) to Skr. *āsthi-* was not solved by Johansson in IF. 14, 322, for the startform *od-thi-* would, to the best of our knowledge, yield Skr. **atthi-* and not *āsthi-*. But I know no phonetic obstacle to assuming for the startform **od-sthi-*, whence *-tsth-* with the treatment of *tsth* in Latin, but a different treatment in Sanskrit. This **od-sthi-* was a compound, and if (o)*dsth-* tended in the primitive speech to (o)*sth*, recomposition may have reintroduced the vanishing (or vanished) *d*. I define *od-* by 'stone': Skr. *ād-ri-s* 'stone, cliff' (**ādyu-s*, if = stump), and *-sthi-* either means 'state, condition' (the whole = "possessing the stone-condition"): the root *sthā(y)-*; or it meant 'hard' in this compound (= stone-hard), and is cognate with the root to which Eng. *stone*, Lettic *stine* 'Eisenstange' belong (see Prellwitz, s. v. *στία*).

we may ask if in Skr. *gābha-sti-s* 'hand, forearm' -*st(h)i-s* 'stans' is not to be recognized as the *posterius*, reduced in value to a mere suffix. The sense of *gābha-stis* will be 'Greifer' (cf. Viennese *Greiferl*), and it will belong with Lat. *habet* 'holds' (see Uhlenbeck, s. v.).

26. By the same token we may divide Skr. *hāsta-s* into *hā* + *st(h)a-s*. What is *hā*? It is either for *hab(h)-* or for *had(h)-* with the final sonant dropped before *st(h)*. I suppose the startform to have been rather **ghod-st(h)o-s* than **gha'h-stho-s* but without being able to give a perfectly convincing reason for my preference, even though Greek *ἄ-γοστος* shows *o* in the root syllable. The root *ghed-* (guttural, not palatal) in the sense of 'grasp' is well attested (see e. g. Walde, s. v. *prehendo*), though some of the forms cited, e. g. Lith. *pasi-gendù* 'desidero, cupio' belong more naturally with the root *g^hhed(h)-* in *θέρσασθαι* 'precari': Av. *jàidyam* 'orare'. A palatal variety (*ghed-*) of a root with pure guttural is not to be incontinently rejected. Thus Skr. *hāsta-s*, from *ghod-stho-s*, also means 'seizer'. and 'seizer' is the apparent (and I believe the real) definition of Gothic *handus* (: *hinþan* 'seize') as well as of Greek *χείρ*. Why suspect this definition? Is not the scientific language of today, when set to point out the differences between man and his ape-progenitor, driven to the designation of the *hand* as the 'Greif-hand'. as the ape's foot is a 'Greif-fuß'?

27. It is valuable for the definition to compare Lith. *pa-žastis* 'armhole, armpit'. The way in which the sense derived is made clear by quoting Horace, *epist.*, 1. 13. 12, ne forte sub ala fasciculum portes librorum, ut rusticus agnum. In short, the *arm-hole* is an *arm-hold* as, conversely, a ship's *hold* is a ship's *hole*. I have elsewhere given to *pa-žastis*, but with less semantic support, I think, the definition of 'res impressa', and to Skr. *hās-ta-s* the definition of 'quod ferit', deriving it from the root *ghes-* 'ferire' (see Mod. Lang. Notes, 22. 38).

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